

Livable Portland

Land Use and Transportation Initiatives



TRI[®]MET
*growing
places*

November 2010



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Preface

At TriMet, we are proud of our contribution to the livability of the Portland region. We have seen enormous growth here since 1969 when the agency was formed. In that time, due to numerous visionary leaders and passionate citizen involvement that increases with each passing year, this region has made great strides in enhancing our sustainability, livability and economic vitality.

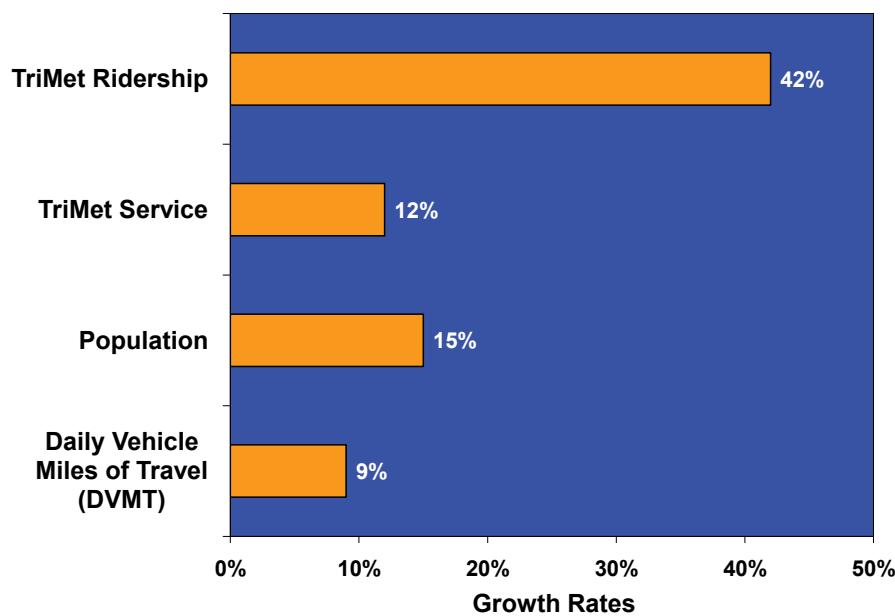
One of the key tools in making this work has been to integrate land use and transportation planning, policy and development. TriMet's role is to provide service across our district in ways that encourage the kind of growth this region has said it wants to accommodate in 2040. The result of this marriage of smart transportation investments—particularly transit—and land use planning is more compact, efficient cities that are easier to serve with non-automobile transportation modes. A fundamental measure of our success is whether more people can conveniently meet their needs by walking, rolling, biking or transit without adding to traffic congestion, emissions and other local, regional and global impacts. Reliable and frequent bus, light rail and streetcar service, combined with attention to bicycle and pedestrian mobility, make it possible for more and more people to choose not to drive for many or all of their daily needs.

The numbers tell the story of this region's success. Between 1997 and 2007, TriMet ridership grew faster than the region's population, the amount of service we provide, and the number of miles that people drove. This region has been bucking the national trend since 1996. During that time the average number of miles driven per person each day has grown nationwide, but it has shrunk here. This fosters more economic activity through dollars saved on vehicle purchases and maintenance, along with a reduction in negative impacts from congestion and greenhouse gas (GHG) emissions, yielding not just local and regional benefits, but national and global ones as well.



*Neil McFarlane
TriMet General Manager*

Regional Trends (1998-2008)



More than \$8 billion of new development has occurred in light rail station areas. A study of MAX Blue Line light rail station areas found that development occurring after light rail investment has an average development density or Floor Area Ratio (FAR) of 0.65 more than the average FAR for development outside of station areas. This means that for every 1,000 square feet of land area developed, station area taxlots realized an additional 650 square feet of building area. The rate of development within Blue Line station areas was 69 percent higher than elsewhere within a one-mile corridor extending along the light rail alignment. Low and moderate value lots within Blue Line station areas redeveloped at twice the redevelopment rate reported for low value lots outside of station areas.

Even as transit has become an amenity with value to a growing market segment, we continue to be mindful of the critical assistance transit can provide low income households. Through its joint development program, TriMet has made land available for more than 350 affordable housing units. Furthermore, according to AAA the average cost of car ownership in the U.S. in 2009 was \$8,487 per year based on 15,000 miles of driving and gas priced at \$2.60 a gallon. Even after deducting the cost of a TriMet annual transit pass, eliminating that car could free up \$627 a month for rent, a mortgage, education, quality childcare, retirement savings or other household choices.

Applied across our region, savings on transportation costs are substantial. Residents of the Portland region on average travel four miles less each day than those in comparable cities in the United States. That means the region drives 2.9 billion fewer miles and saves \$1.1 billion in travel costs (fuel, vehicle wear and tear, insurance, permits, etc.) annually. The value in annual travel time savings is estimated to be \$1.6 billion.

TriMet is, of course, just one member of a team. The 1.7 million residents of this region, tens of thousands of businesses, thousands of neighborhood, business, and community groups, one nationally unique elected regional government, and 26 city and county jurisdictions have contributed to these successes. We sometimes disagree about details but we all share the same general vision of a livable, prosperous region surrounded by viable farms, forests and recreational opportunities.

This publication tracks the evolution of our light rail system, describes the land use planning efforts that support vibrant station areas and illustrates our approach with selected transit-oriented developments and self-guided tours. Through these pages you will see how partnerships among regional agencies, local governments, private sector investors and citizen activists have shaped this place. We try to learn from our own experiences, and we want to share with you what we can to help your region pursue its own vision. We hope the examples in this book will help.

A handwritten signature in green ink that reads "Neil McFarlane". The signature is fluid and cursive, with "Neil" on top and "McFarlane" below it, both written in a single continuous line.

Livable Portland:

Land Use and Transportation Initiatives

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Haystack Rock at Cannon Beach is located on the North Oregon Coast. The 1967 Oregon Beach Bill granted free public access to the entire coast. Photo: flickr.com/photos/arcticpuppy/



Chapter One

The Oregon Story

“Coastal condo-mania, sagebrush subdivisions and the ravenous rampage of suburbia, here in the Willamette Valley, threaten to mock Oregon’s status as the environmental model of this nation...The interest of Oregon for today and in the future must be protected from the grasping wastrels of the land.”

— Governor Tom McCall, January 8, 1973

Governor McCall's colorful oratory in support of land use planning was hardly a rallying cry to create great cities. In fact, the politics of the nation's first statewide land use regimen, adopted by the Oregon legislature in 1973, originated from decidedly anti-urban politics. A mostly rural Oregon declared: keep your city off our farm and forest land. Few at the time would have guessed that more than 30 years later we can credit Republican Governor McCall and the powerful duo of the agricultural and timber industries with establishing the framework for Portland's "grow up, not out" urban form.

Oregon Land Use Planning Program

The passage of the Oregon Land Use Planning Program—Senate Bill 100—in 1973 launched Oregon on a new, difficult and exciting program of statewide land use planning. The bill created a partnership in planning between the state and its 241 cities and 36 counties. It set standards for local plans, created an agency to administer them and provided grants to help local governments meet those standards.

Oversight

Oregon's Land Use Planning Program provides protection of farm and forest lands, conservation of natural resources, orderly and efficient development, coordination among local governments, and citizen involvement. The Oregon Department of Land Conservation and Development (DLCD) administers the program. The department is directed by a seven-member citizen commission, appointed by the governor and called the Land Conservation and Development Commission (LCDC).

The program's mission states that it will "Support all of our partners in creating and implementing comprehensive plans that reflect and balance the statewide planning goals, the vision of citizens, and the interests of local, state, federal and tribal governments." Tools meant to support this mission include state legislation, the 19 statewide planning goals and local comprehensive plans.

Massive changes in Oregon and land use planning have occurred since SB 100 was enacted. Local plans and ordinances are in place, and zoning largely protects farm and forest land. DLCD now strives to see that urban development is done efficiently to minimize the expansion of urban land, to limit infrastructure costs and to assure that affordable housing is provided.

Urban growth boundaries

Urban growth boundaries (UGBs) are a central tenet of the Oregon Land Use Planning Program adopted in 1973. By creating the boundaries, legislators sought to ensure the preservation and viability of farmland by limiting city growth and preventing "leap-frogging" suburbs. The Portland metropolitan area boundary encompasses 24 cities and the urban portions of three counties. The Portland UGB is administered by Metro, the area's elected regional government.

The objectives of UGBs are to:

- plan for and promote a compact and efficient urban form
- improve the efficiency of public facilities and services
- preserve prime farm and forest lands outside the boundary

UGBs limit urban sprawl and reduce the cost of providing urban services. They also assure agricultural uses outside the boundary and enable farmers to make long-term investments.

Oregon's Statewide Planning Goals

1. Citizen Involvement
2. Land Use Planning
3. Agricultural Lands
4. Forest Lands
5. Natural Resources, Scenic and Historic Areas, and Open Spaces
6. Air, Water and Land Resources Quality
7. Areas Subject to Natural Disasters and Hazards
8. Recreation Needs
9. Economic Development
10. Housing
11. Public Facilities and Services
12. Transportation
13. Energy Conservation
14. Urbanization
15. Willamette River Greenway
16. Estuarine Resources
17. Coastal Shore Lands
18. Beaches and Dunes
19. Ocean Resources

Oregon state law requires jurisdictions to provide a 20-year supply of residential land for the metropolitan area inside the UGB. The land supply and growth rates are re-examined every five years to check capacity.

Challenges

Oregon's statewide land use requirements are not without critics. During its 30-plus year history, property rights advocates have sponsored ballot measures to roll back the state's authority.

Voters rejected ballot measures to restrict land use planning in 1998 and 2000. In 2004, Oregon voters approved Ballot Measure 37, which entitled an owner of private property to receive just compensation when a land use regulation restricts the use of the property and reduces its fair market value. In lieu of compensation, the measure also stated that the government responsible for the regulation may choose to "remove, modify or not apply" the regulation affecting the property. The provision applied only to those land use actions that occurred after the property owner or the owner's family purchased the property.

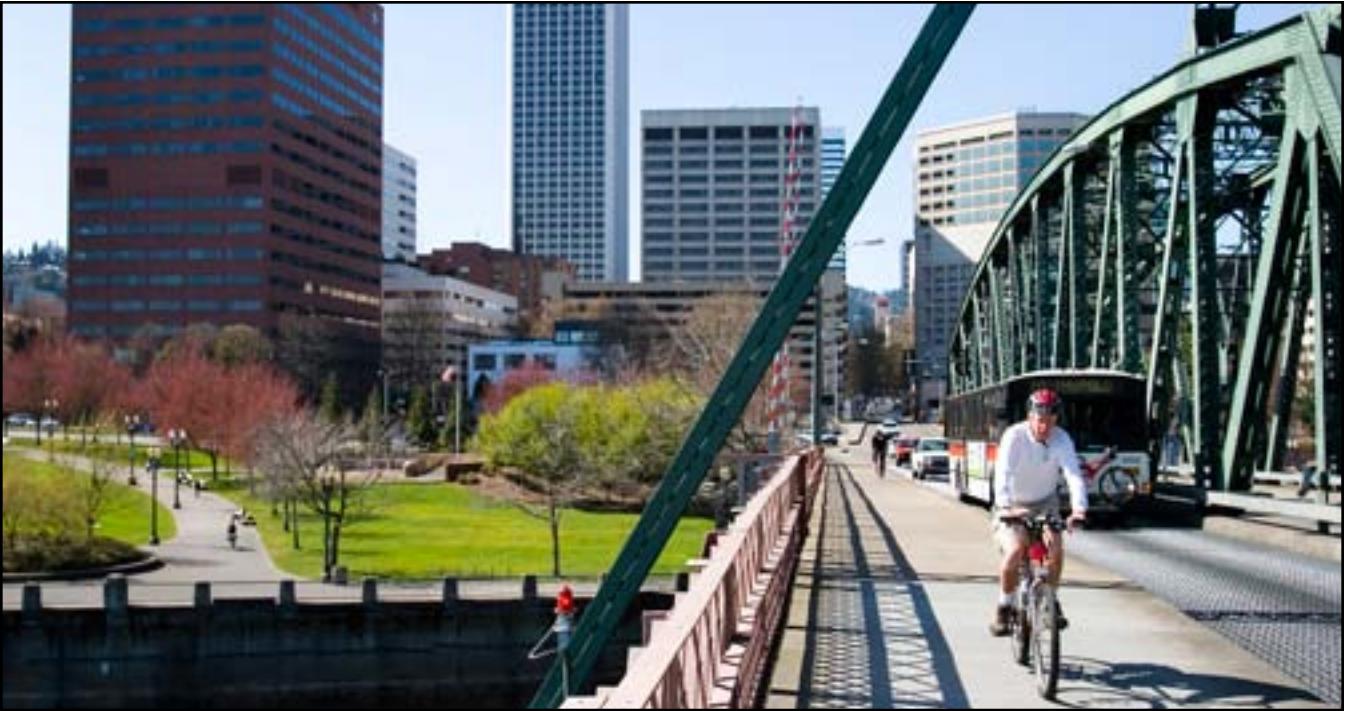
Nearly 7,000 so-called "regulatory taking" claims were filed as a result in Measure 37, setting off a frenzy of land use hearings in communities around the state and causing considerable confusion about the evidence required to demonstrate a reduction in property value. Of the claims that moved forward, most local governments chose to waive land use restrictions rather than pay just compensation.

These claims helped convince voters to reverse much of Measure 37 by approving Measure 49, which the 2007 Oregon Legislature had referred to the ballot. The measure eliminated challenges to restrictions on industrial or commercial uses of property. In addition, claimants must prove their losses by presenting appraisals of the property one year before and one year after the enactment of the regulation. For land use restrictions enacted before 2007, a restriction may only be waived to permit the claimant to build one to three homes on their land, or up to 10 homes if the property is not high value agricultural land and the claimant can show that the waiver is necessary to restore the appraised value of the property.

Big Look

In 2005, Governor Ted Kulongoski and the Oregon Legislature created the Big Look Task Force to review Oregon's land use planning system. The Task Force met over the course of three years. It recommended that:

- The state needs a more flexible land use system, one that responds to regional variations rather than providing "one size fits all" standards.
- The state should foster greater regional cooperation among cities and counties to resolve land use planning issues collaboratively and efficiently.
- The state should coordinate planning for land use, economic development and transportation, and clearly articulate the desired outcomes. The state should also develop systems to monitor progress in achieving those outcomes, along with asking for feedback about both successful and unproductive strategies
- The state's land use system needs to be simplified to remove the complexity that has built up after 35 years of regulation so that ordinary citizens can understand the basics of the program.



Oregon's Transportation Planning Rule requires metropolitan areas to adopt long-range transportation system plans for the needs of autos, bikes and pedestrians.

A House bill that would have acted on these recommendations gained little traction in the 2009 legislative session, failing to pass.

Policies and Programs

In addition to its land use planning framework, Oregon has a number of policies and programs that impact land use and transportation investments.

Oregon Bicycle and Pedestrian Plan

The Oregon Bicycle and Pedestrian Plan is one of the modal elements of the Oregon Transportation Plan. The plan establishes Oregon Department of Transportation (ODOT) policies regarding bicycling and walking. It sets construction standards for ODOT and offers guidelines to local jurisdictions in establishing their bicycle and pedestrian networks.

The plan requires ODOT to include bikeways and walkways when roads are constructed, and the agency, cities and counties may use road funds for constructing bikeways and walkways along existing roads. Thus, many improvements for pedestrians and bicyclists occur as roads are built or rebuilt for "modernization" projects.

Transportation Planning Rule

The Transportation Planning Rule (TPR), adopted in 1991, clarifies the relationship between

transportation and land use. It defines the characteristics of acceptable transportation plans, establishes standards for transportation system performance, and requires explicit links between local land use and transportation planning processes. At the same time the metropolitan planning organizations implement the TPR requirements, they must also address the Oregon Transportation Plan, Oregon state benchmarks, and the federal Intermodal Surface Transportation Efficiency Act of 1991 and Clean Air Act amendments.

The TPR requires metropolitan areas to adopt specific targets and plans to reduce reliance on the automobile. Metropolitan areas must either meet the state mandate to reduce vehicle miles traveled (VMT) by five percent during the 20-year planning period or obtain state approval of an alternative measure. Plans to achieve the target must include measures to improve the availability and convenience of alternative modes (including transit, walking and cycling), as well as transportation demand management measures and parking management plans. The TPR also directs metropolitan areas to implement land use changes to promote compact, mixed-use, pedestrian-friendly development as a way to reduce automobile reliance.

The TPR requires cities and counties throughout the state to prepare and adopt transportation

system plans (TSPs) to meet long-range transportation needs. These must include planned roadway improvements as well as plans for bike and pedestrian facilities. Larger communities must include planning for transit.

Transportation and Growth Management Program

Initiated in 1993, the Transportation and Growth Management (TGM) program is a joint effort of the Oregon Department of Transportation and the Department of Land Conservation and Development. The TGM program provides grants as well as direct community assistance to help local governments plan for balanced, multimodal transportation systems that support vibrant, livable communities. Competitively awarded TGM grants represent the primary source of state support for local planning efforts to comply with state requirements.

Local governments typically use the TGM grants to develop, update or refine transportation system plans, which examine local transportation needs. The grants are also used to support transportation-efficient land use plans for downtowns, residential neighborhoods, and industrial, commercial or mixed-use districts.

Besides providing transportation planning grants, TGM offers three types of direct community assistance to local governments on transportation and land use issues:

- TGM Quick Response projects make transportation, land use and urban design specialists available to help local governments work with developers and neighborhood groups to solve problems and improve access to local destinations through better road, sidewalk, bike lane and transit connections.
- TGM Code Assistance projects help local governments reassess their planning and zoning codes with a view to identifying and adopting code revisions that yield greater transportation efficiencies in new development.
- TGM Outreach projects increase public awareness and understanding of transportation and growth management concepts that improve the mobility of Oregonians. Outreach typically occurs through workshops, public forums and conferences.

TGM has also produced publications that address a wide range of common transportation and growth management issues. Some titles include:

- Main Street: When a Highway Runs Through It
- Model Development Code and User's Guide for Small Cities
- Neighborhood Street Design Guidelines
- The Principles of a Balanced Transportation Network
- Parking Management Made Easy: A Guide to Taming the Downtown Parking Beast

Employee Commute Options Rules

The state Environmental Quality Commission adopted the Employee Commute Options (ECO) rules (Oregon Administrative Rules 340-242-0100 through -0290) in July 1996. Renewed and revised in February 2007, the rules are intended to keep the air clean in the Portland area.

Under the ECO program, employers in the Portland area with more than 100 employees reporting to a single work site must provide incentives for employee commute options other than driving alone. The incentives must have the potential to reduce commute trips to the work site by 10 percent within three years. Annual employee surveys measure progress toward this goal.

Typical incentives offered by employers include transit subsidies, carpool matching and preferential carpool parking, bike programs, compressed work weeks and telecommuting. Alternative compliance methods include reducing other vehicle traffic to or within the work site, reducing air pollution emissions from non-auto sources at the work site, or paying a fixed fee. New development may comply by limiting construction of new parking spaces.

Climate change

Adopted in 2007, House Bill 3543 (HB 3543) set ambitious goals for reducing greenhouse gas emissions in Oregon and established a comprehensive statewide effort to address climate change and its associated impacts.

HB 3543 mandates a reduction in Oregon's greenhouse gas emissions to 10 percent below 1990 levels by 2020 and to 75 percent below 1990 levels by 2050. The law does not create any additional regulatory authority for state agencies.

HB 3543 also created the Oregon Global Warming Commission, which recommends ways to achieve the emission reduction goals and ways for Oregon to prepare for the effects of global warming. As part of its task, the Commission examines the

suitability of a multi-state carbon cap-and-trade system and other market-based mechanisms for achieving the emission reduction goals.

The Commission also monitors the economic, environmental, health and social impacts of global warming and reports biennially on Oregon's progress toward the emission reduction goals. The Commission is also charged with increasing Oregonians' awareness of the scientific aspects and economic impacts of global warming.

Taxation

Tax policy shapes public and private investment; it has a significant impact on land development and can be used as an incentive to achieve planning and affordable housing goals. There are several notable aspects of Oregon's tax system as it relates to land use and transportation.

No sales tax

Oregon is one of five states with no sales tax. Legislative efforts to enact a sales tax have been referred to the ballot and rejected by Oregon voters on several occasions. From a land use perspective, the absence of a sales tax may reduce the incentive for local governments to zone for retail uses. The lack of a sales tax also explains the market demand for large retail centers on the Oregon-Washington border along I-5 and I-205—these centers draw Washington residents interested in tax-free shopping. Finally, Oregon has not had the benefit of being able to bond against sales tax revenue to support capital investments in transit or other infrastructure.

Property taxes

The absence of a sales tax has not made Oregon immune to public concern about property taxes. Ballot Measure 5, adopted in 1990 with a slim majority, amended the Oregon Constitution to establish limits on Oregon's property taxes on real estate. The measure capped property taxes dedicated for school funding at \$15.00 per \$1,000 of real market value per year, gradually lowering the cap to \$5. Property taxes for other purposes were capped at \$10 per \$1,000 per year. Thus the total property tax rate would be 1.5% at the end of the five-year phase-in period. To equalize funding, the measure also transferred the responsibility for school funding from local government to the state.

To combat the suspicion that local governments would aggressively re-assess properties to make up for Measure 5's lower tax rate, voters approved Measure 47 in 1997. This measure limited the growth of a property's assessed value to 3 percent maximum per year. Unless a property is developed or redeveloped, its assessment is frozen at the 1997 level plus 3 percent annually, regardless of whether it has sold for a greater market value. This has made local governments almost exclusively dependent on new development to increase their tax base. It also means that property owners do not pay higher taxes when property values increase because of public investments such as light rail.

TOD tax abatement

The 1995 Oregon State Legislature amended legislation to enable local jurisdictions to adopt a property tax abatement program for transit-oriented development (TOD). The legislative purpose is to promote higher-density residential and mixed-use development near major public transit facilities. The exemptions support TOD projects—and increase their financial feasibility—by reducing operating costs through a ten-year tax exemption on the improvement value of a property. Property owners continue to pay taxes on the land value during the exemption period.

Business Energy Tax Credit

The Oregon Legislature created the Business Energy Tax Credit to encourage Oregonians to save energy. The program, administered by the Oregon Department of Energy, promotes investments in energy conservation, renewable energy resources, recycling and less-polluting transportation fuels.

Any Oregon business may qualify. Oregon non-profit organizations, tribes and public entities also qualify, but must partner with an Oregon business or resident with an Oregon tax liability. Eligible projects may be in office buildings, retail stores, apartment buildings or manufacturing plants, or in transportation. Projects must be located in Oregon, and project owners must apply for the tax credit before they start the project.

The tax credit is 35 percent of eligible project costs, taken over five years—10 percent in the first and second years, and 5 percent in the last three years. If project costs are \$20,000 or less, the business may take the tax credit in one year. The eligible costs for a single project may not exceed \$10 million.

Transportation projects that reduce vehicle miles traveled may qualify for a tax credit. Three targeted projects are:

- Telework, an arrangement in which employees work at locations other than the traditional workplace one or more days a week. Businesses can get a tax credit for purchasing and installing new or used equipment that allows an employee to telework. Computers, fax machines, modems, phones, printers, software, copiers and other equipment necessary for telework are eligible costs for the tax credit. The employee must telework at least 45 days per calendar year.
- Employers that subsidize transit passes for employees or provide vehicles for vanpooling or carpooling are eligible for the tax credit.
- Business owners who buy a hybrid vehicle or one that uses alternative fuel may also be eligible for a tax credit.

Resources

1000 Friends of Oregon
friends.org

Bicycle Transportation Alliance (BTA)
bta4bikes.org

Business Energy Tax Credit
oregon.gov/ENERGY/CONS/BUS/BETC.shtml

Climate change
oregon.gov/ENERGY/GBLWRM/Portal.shtml

Employee Commute Options
deq.state.or.us/nwr/eco/eco.htm

Oregon Department of Land Conservation and Development
oregon.gov/LCD/

Oregon Department of Transportation
oregon.gov/ODOT

Oregon Transportation Research and Education Consortium (OTREC)
otrec.us

The region's urban growth boundary draws a line between urban development and protected farm and forest land. Photo: EPA Smart Growth



Chapter Two

Regional Governance and Policy

“A generation ago, Portland’s metropolitan-wide planning approaches were considered ‘experimental.’ As America changes and as lessons from Portland’s ‘experiment’ emerge it is becoming increasingly evident that metropolitan Portland’s governance structure, civic engagement processes, planning approaches, and community health innovations are a harbinger for sustainable metropolitan development.”

— Arthur C. Nelson, Presidential Professor of City & Metropolitan Planning at the University of Utah

Portland is often celebrated as one of the nation’s “most livable cities” and a leader in sustainable development. The high quality of life in the region can be attributed to bold and innovative planning efforts that protect farm land and natural areas, revitalize commercial districts, preserve the character of residential neighborhoods, minimize its environmental footprint, and promote the use of alternative modes of transportation. By taking a regional planning approach that carefully considers the interrelation between land use and transportation, the Portland region has become a national model for maintaining and creating vibrant communities. Metro and TriMet have been instrumental in these efforts and the ensuing achievements.

Metro

Metro, the nation’s only elected regional government, serves more than 1.5 million residents in Clackamas, Multnomah and Washington counties and the 25 cities in the Portland region. It was formed in 1979 to forge new strategies and innovative partnerships to build vibrant communities, promote economic growth and protect wildlife habitat. Metro provides regional services that include overseeing solid waste and recycling services, the management of public places like the Oregon Zoo, Portland Center for the Performing Arts, the Oregon Convention Center and the Portland Expo Center, and the stewardship of more than 12,000 acres of parks and natural areas.

Metro is also charged with developing growth management and land use policies, creating an overall transportation plan and allocating federal funds through the Transportation Priorities

program. The agency is responsible for approving the expenditure of these federal transportation funds—which have been pivotal in implementing the region’s land use and transportation vision. Various committees with broad representation in the region advise Metro; this process assures local elected officials are directly involved in regional policy and investment decisions.

Joint Policy Advisory Committee on Transportation

Acting in concert, Metro and the Joint Policy Advisory Committee on Transportation (JPACT) serve as the region’s Metropolitan Planning Organization (MPO). JPACT is a 17-member committee of elected officials and representatives of agencies involved in transportation that make recommendations to the Metro Council on transportation needs in the region. JPACT is charged with defining required regional transportation improvements, developing a consensus of governments on the prioritization of required improvements, and promoting and facilitating the implementation of identified priorities.

JPACT is responsible for evaluating the update of the Regional Transportation Plan and making recommendations to the Metro Council. JPACT’s discussions are based on the technical assessments of the Transportation Policy Alternatives Committee (TPAC), which includes technical staff from the same agencies as JPACT, as well as six citizens appointed at large by the Metro Council. This involvement of local jurisdictions is crucial because of the RTP’s role as the framework for local transportation service providers.



Flickr.com/photos/2256225@N04

Farmland in the region is protected by the urban growth boundary, making it possible for local farmers to sell food and goods to cities just minutes away.

Metro Policy Advisory Committee

Established by the Metro Charter in 1992, the Metro Policy Advisory Committee (MPAC) advises the Metro Council on the amendment or adoption of the Regional Framework Plan. The committee is comprised of local government elected officials and citizens. Discussion or action items addressed by the committee include:

- regional transportation
- management of the urban growth boundary
- protection of lands outside the urban growth boundary for natural resource, future urban or other uses
- planning responsibilities required by state law
- other growth management and land use planning matters determined by the Metro Council to be of metropolitan concern which will benefit from regional planning

While MPAC advises the Metro Council on growth management and land use issues at the policy level, the Metro Technical Advisory Committee (MTAC) provides input from the technical level. Similar to MPAC, MTAC members represent cities, counties, special districts and the public as well as utilities, land use advocacy and environmental organizations, the development community, and economic development associations.

Land use vision

Metro is developing ongoing initiatives to plan for the one million new residents expected by the year 2030 and to address climate change while growing a strong economy. In collaboration with local governments and the private sector, the Metro Council is working to maintain the compact vibrant communities that use land efficiently, develop firm connections to the natural environment and promote strong local and regional planning. Metro is responsible for allocating federal transportation funds to projects throughout the region. The focus on generating new, more efficient ways to manage the region's land and transportation infrastructure, leverage market forces and build consensus on projects to be funded has contributed to the region's success in attracting federal funding for highway, transit, and bike and pedestrian network projects.

Urban growth boundary

Metro manages the Portland metropolitan area's urban growth boundary (UGB), which separates urban land from rural areas. The boundary controls urban expansion onto farm and forest lands. Land inside the UGB supports urban services such as roads, water and sewer systems, parks, schools, and fire and police protection that create thriving places to live, work and play. The UGB is one of the

tools used to promote the efficient use of land, public facilities and services inside the boundary. It is an important part of a comprehensive strategy to manage growth in the region.

Urban growth boundaries are a central tenet of the Oregon Land Use Planning Program adopted in 1973. The main intent of the boundaries is to ensure the preservation and viability of farm land by limiting city growth while providing assurance for local governments and businesses about where to place infrastructure such as roads and sewers. Oregon state law requires jurisdictions to provide a 20-year supply of residential land for the metropolitan area inside the UGB and identify a 50-year supply through “urban reserves.” The land supply and growth rates are re-examined every five years to evaluate capacity.

Expanding the UGB

Since the late 1970s, the UGB has been moved about 35 times. Most of those moves involved 20 acres or less. Recently, Metro authorized more substantial additions:

- In 1998, about 3,500 acres were added to make room for approximately 23,000 housing units and 14,000 jobs. Acreage included areas around the Dammasch State Hospital site near Wilsonville, the Pleasant Valley area in east Multnomah County, the Sunnyside Road area in Clackamas County and a parcel of land south of Tualatin.
- In 1999, 380 acres were added based on the concept of “subregional need.” Subregional need occurs when a community needs land to balance the number of homes with jobs available in the area.
- In 2002, 18,638 acres were added to the urban growth boundary to provide 38,657 housing units and 2,671 acres for additional jobs. This action also created important regional policies to support neighborhoods, protect industrial areas, and enhance regional and town centers. These expansions represented an increase of about two percent, though the population of the greater Portland metropolitan area increased approximately 17 percent since 1990.
- In 2004-05, 2,285 acres were added to the boundary to address the need for industrial lands as identified in a 2002 planning process.

In 2007, the Oregon Legislature approved Senate Bill 1011 in order to create greater certainty about areas that will and will not be urbanized over a longer time horizon. SB 1011 called for designating

land in the metro area but outside the existing UGB as either urban or rural reserves. Urban reserves would be eligible for consideration to be brought into the UGB in the next 50 years. Rural reserves would remain rural during the next 50 years. These land use designations do not change current zoning or restrict landowners’ currently allowed use of their lands. They provide greater clarity regarding the long term expected use of the land and allow both public and private landowners to make long term investments with greater assurance.

In 2010, the Metro Council adopted 28,615 acres of urban reserves, as well as criteria to prioritize which, if any, of these acres would be brought into the UGB. At the end of 2010 this decision was under review by the Oregon Department of Land Conservation and Development.

2040 Growth Concept

In 1995, the Metro Council adopted the 2040 Growth Concept, the region’s growth management policy. This innovative blueprint for the future defines development in the metropolitan area through the year 2040. The 2040 Growth Concept guides how the urban growth boundary is managed in order to protect the community characteristics valued by the people who live in the region, to enhance a transportation system that ensures the mobility of people and goods, and to preserve access to nature.

Urban Growth Management Functional Plan (UGMFP)

In 1996, Metro adopted the Urban Growth Management Functional Plan (UGMFP), which mandates that jurisdictions comply with the goals and policies adopted by the Metro Council. The plan provides tools and establishes requirements that help meet goals in the 2040 Growth Concept. Among other things, the plan:

- Requires minimum density standards of 80 percent of maximum zoned density for all zones that allow residential uses
- Stipulates that local governments shall not prohibit the construction of an accessory unit within any detached single family dwelling unit
- Sets the minimum number of parking spaces that can be required by local governments for certain types of new development.
- Ensures that all cities and counties in the region are providing opportunities for affordable housing for households of all income levels

Transit-Oriented Development Program

Metro's Transit-Oriented Development (TOD) Program works directly with developers and local jurisdictions to create vibrant downtowns, main streets and station areas by helping to change land use patterns near transit. Federal Metropolitan Transportation Improvement Program (MTIP) funds are allocated to TriMet, which in turn provides its general funds to Metro. This relieves the TOD Implementation Program from the responsibility of meeting federal requirements.

The program attracts private investment in construction of compact and mixed-use buildings that:

- Brings people to live and work within walking distance of high quality transit, station communities, and regional and town centers
- Creates new market comparables for more compact development
- Cultivates developers with expertise in compact and mixed-use building in suburban settings
- Increases acceptance of urban style buildings through high quality design
- Contributes to placemaking and local identity

Public/private development partnerships are necessary because planning and zoning alone are not enough to make TOD projects financially feasible in most areas outside of Portland's city center. To overcome market barriers, Metro offers financial incentives to offset the higher costs of compact development by purchasing TOD easements from developers and, in some cases, acquiring and selling land near transit at a reduced cost. Metro's role as a financial partner in TOD projects can leverage other public support; local and state agencies have helped to spur development by reducing entitlement risk, expediting permitting, authorizing tax abatements, making related public improvements and providing project financing.

Completed or currently under construction Metro TOD-funded projects have leveraged more than \$300 million in development to build 2,100 housing units (including 1,200 affordable units), 100,000 sq. ft. of retail and 140,000 sq. ft. of office space. By increasing the intensity of land uses close to transit, people have been induced to use transit more, and drive less—more than half a million trips are being taken by transit every year as a direct result of TOD projects built. This improves

the cost-effectiveness of regional transit system investments. By building at higher densities, these projects have also relieved pressure on the urban growth boundary, using only 80 acres where conventional development would have taken over 500 acres. Project investments and commitments have been made in 24 station communities located in jurisdictions throughout the region.

Transportation to support the vision

Regional Transportation Plan

The Regional Transportation Plan (RTP) is a 20-year blueprint to ensure the ability to get "from here to there" as the Portland region grows. The RTP establishes transportation policies for all forms of travel—motor vehicle, transit, pedestrian, bicycle and freight—and includes specific objectives, strategies and projects to guide local and regional implementation of each policy. The plan was first adopted by the Metro Council in 1983, and is updated periodically to reflect changing conditions and new planning priorities. A 1995 update responded to new federal requirements in the Intermodal Surface Transportation Efficiency Act (ISTEA), the Clean Air Act and the Americans with Disabilities Act. Between 1996 and 2000, the RTP was updated to implement the 2040 Growth Concept Plan and the state Transportation Planning Rule. Development of the new plan was guided by input from a 21-member citizen advisory committee, officials and staff from the region's cities, counties and state agencies, and residents, community groups and businesses.

Transportation choice

The policies in the RTP place a new emphasis on transportation alternatives for travel to work, shopping and recreation. While the policies recognize that most travel in the region will continue to be by motorized vehicles, alternatives to automobile travel such as transit, walking and bicycling are also recognized as important. In addition, the policies recognize the importance of the movement of goods and services to our regional economy. The overall strategy is to tie transportation to land use in the most efficient way possible.

The 2040 Growth Concept Plan provides the land use direction for the RTP, with planned improvements closely tied to the needs of different

areas. For example, areas with concentrated development, such as downtown Portland and regional centers such as Gresham and Beaverton are targeted with a balance of high-quality transit, pedestrian and bicycle projects to complement needed auto improvements. In contrast, projects in industrial areas and along freeways and highways are largely oriented toward auto and truck travel. In addition to focusing on strategies to improve everyday transportation needs, the RTP provides a vision for new ways to get around, such as commuter rail and vanpools. This vision also includes telecommuting, ride-sharing and other programs designed to reduce demand on the transportation system. The plan includes specific policies related to street design, elderly and disabled transportation needs and increasing walking, biking and transit use in the region. The policies established in the RTP guide local governments as they develop their local transportation plans, which are required by state law to be consistent with the RTP.

Beyond congestion

In 2008, Metro completed an RTP update addressing federal planning requirements. In June 2010 the region adopted a new RTP that complies with federal and state requirements that will lead to a number of local and regional transportation planning activities and on-the-ground projects. New policies focus on corridor-wide improvements to enhance transportation choices, access to transportation, and the distribution of trips rather than simply responding to congestion “hot spots” when prioritizing transportation investments.

Livable streets

Streets are key to community livability. The RTP, state and federal transportation policies, the Clean Water Act and the awareness of the impacts of transportation on endangered species have all elevated the importance of street design in regional planning. Metro addressed these mandates with street design policies that support implementation of the 2040 Growth Concept by linking the way a street is designed to the land uses it serves. The policies were adopted in the RTP. Metro has developed handbooks that provide practical guidelines for designing safe and healthy streets in the region. All of the guidelines are consistent with the street design policies.

Creating Livable Streets—Street Design Guidelines

This handbook describes how communities can design streets to better serve walking, biking and transit while also preserving the region's mobility needs. Street design elements such as wide sidewalks, marked crosswalks, landscaped buffers, bikeways, on-street parking, street trees, pedestrian-scale lighting, bus shelters, benches and corner curb extensions provide an environment that is not only attractive, but can slow traffic speeds and encourage walking, bicycling and use of transit. The guidelines described in the handbook serve as tools for improving existing streets and designing new streets. They reflect the fact that streets perform many—and often conflicting—functions and there is a need to reconcile conflicts among travel modes. A section of the handbook provides guidance for making design tradeoffs to respond to changes in land use or when right of way is limited.

Green Streets—Innovative Solutions for Stormwater and Stream Crossings

This handbook describes basic stormwater management strategies and illustrates “green” street designs with features such as street trees, landscaped swales and special paving materials that allow infiltration and limit stormwater runoff, helping protect stream habitats. The handbook also provides guidance on balancing the needs of protecting streams and wildlife corridors from urban impacts and providing access across those streams as part of good transportation design.

Trees for Green Streets—An Illustrated Guide

This handbook describes the role of street trees in managing stormwater. Appropriate tree species are illustrated in the book, with a list of major characteristics. The street tree guide focuses on the Portland region, but tree suggestions apply to any West Coast temperate climate from Vancouver, B.C., to parts of Northern California. The handbook is intended for use in conjunction with the Creating Livable Streets and Green Streets handbooks.

Wildlife Crossings—Providing Safe Passage for Urban Wildlife

This handbook describes an approach to identifying wildlife inventory and linkages and mitigating the ecological effects of roads on wildlife populations through wildlife crossings.

Examples and case studies are provided of planning activities, along with implemented wildlife overpasses, underpasses, culverts, and at-grade treatments.

Regional Travel Options program

Metro's Regional Travel Options (RTO) program implements strategies to help diversify people's trip choices, reduce pollution and improve mobility. Reducing the number of vehicles on the road cuts vehicle emissions, decreases congestion, extends the lifecycle of existing roadways and promotes a healthier community.

Grants provided through the program support projects that reduce the number of people driving alone, improve air quality and address community health issues. The program encourages all of the alternatives to driving alone, such as carpooling, vanpooling, riding transit, bicycling, walking and telecommuting. It maximizes investments in the transportation system and relieves traffic congestion by managing travel demand in the region, particularly during peak commute hours. Regional strategies offer low-cost solutions that:

- Address employer and commuter transportation needs
- Save consumers money
- Reduce vehicle emissions that contribute to air pollution and global warming
- Encourage active travel modes that enhance public health and increase physical activity
- Increase public awareness of the personal and community benefits of travel options

RTO Strategic Plan

The RTO program is guided by a five-year strategic plan developed in partnership with program stakeholders. The current plan, which covers 2008 to 2013, sets the following priorities:

Employer outreach

- Promote travel options to employers and commuters.
- Enhance coordination of employer outreach strategies to maximize investments and avoid duplication.

Traveler information services

- Update *CarpoolMatchNW.org* to enhance the site's usability and reduce administrative costs.
- Explore development of a regional multi-modal trip-planning tool to aid travel decision making for all trip purposes.

Outreach to new residents and people who relocate

- Relocation is a key time for people to consider travel options and change travel habits. The RTO program will identify target market segments among new residents.

Parking management

- Parking management results in positive impacts across land use, managing the transportation system and supporting the economy. The RTO program will partner with employers, developers and local jurisdictions to help manage parking through employer outreach and RTO grants.
- Potential projects include: designate spaces for carpools and vanpools, install prominent bike parking, assist employers to discontinue employee parking subsidies, and help implement parking pricing or short term parking zones that free up parking in business and retail centers while encouraging drivers with long-term parking needs to try carpooling, transit or other options.

Public-private partnerships

- Support public-private partnerships to leverage investments and increase use of travel options in local downtowns and centers.
- Update regional Transportation Management Association policy and explore funding options.

Individualized marketing

- Apply individualized marketing strategies in select locations to increase travel options use and decrease single-person car trips.

Drive Less/Save More

- Continue implementation of the Drive Less/Save More regional and statewide advertising and public awareness campaign.

TriMet

While Metro performs long-range transportation planning for the metropolitan area, TriMet is the public agency that provides mass transit in the region. Formally known as the Tri-County Metropolitan Transportation District of Oregon, TriMet was created in 1969 by the Oregon legislature and operates the region's bus system, light rail lines, WES Commuter Rail and LIFT paratransit service.



TriMet's Transit Investment Plan lays out strategies and programs to meet regional transportation and livability goals via investments in service, capital projects and customer information.

TriMet provides transportation options for thousands of Portland-area residents every day. It operates more than 649 buses on 79 bus routes, with 7,000 bus stops. The MAX Light Rail system stretches 52 miles and serves 85 stations with 127 light rail vehicles. TriMet provides 11,200 parking spaces in 31 Park & Ride lots around the region, with 36 additional lots shared with churches, retail businesses and theaters. In addition to the fixed route service, TriMet meets the needs of elderly and disabled individuals by providing door-to-door shuttle services with the LIFT and medical transportation programs.

Special district

TriMet is a special district of the State of Oregon and is governed by a seven-member Board of Directors appointed by the governor. The agency's service area covers much of three counties (Multnomah, Clackamas, and Washington), nearly 600 square miles with a population of 1.4 million people.

A regional payroll tax provided 53 percent of TriMet operating revenue in FY 2009. The tax was \$6.82 per \$1,000 on gross payroll as of January 2010. Passenger revenue accounted for 23 percent of the budget, state/federal operating grants 16 percent and other sources eight percent.

Compete to succeed

During the 1960s and '70s, many public transit systems were reduced to an extension of the welfare system. The low quality of service reflected the notion that transit riders had no other choice.

TriMet's success is predicated on the idea that its riders have other choices, and the agency must compete to succeed. The concept of a "total transit experience" reflects the elements of a transit trip that must be addressed in order to attract riders to transit.

The transit patron's "total transit system" begins when planning a trip. A potential transit rider may need schedule and route information as well as stop locations. This includes the travel to the station or stop and the quality of the station or stop environment. Transit frequency and ease of transfers are part of the experience, as is the ride itself. Then there's the walk to the final destination and the ability to complete the round-trip with ease. To meet transit needs as the region grows, TriMet is working to address all of these elements, in addition to the basic job of getting transit service on the street.

TriMet's planning is grounded in the Region 2040 Framework Plan and the Regional Transportation Plan (RTP). This coordination assures land use and transportation will continue to be integrated and

mutually supportive, allowing the region to grow smarter, to make best use of its infrastructure investments and to improve the livability for all citizens of this region.

The region works hard to maximize the significant transit investments by connecting transit with land use. Light rail stations generally have a station area zoning overlay. TriMet and Metro each manage transit-oriented development programs, with TriMet's largely tied to the use of excess rights of way, joint use conversion of transit facilities or review of significant projects in consultation with partner jurisdictions. More than \$8 billion in development has occurred along light rail since the first line opened in 1986.

TriMet's focus on on-street bus stop amenities and customer information is another aspect of the agency's attention to the total transit experience. TriMet and Metro prepared an inventory of the sidewalk infrastructure used to set priorities for sidewalk and crosswalk needs. Some new shelters are installed each year and new shelter designs help prevent graffiti. Innovations such as the web-based Trip Planner make planning transit trips easy. TransitTracker provides real-time information about transit arrivals.

Transit Investment Plan

The Transit Investment Plan (TIP) lays out TriMet's strategies and programs to meet regional transportation and livability goals through focused investments in service, capital projects and customer information. The TIP is a rolling five-year plan that is updated annually. The TriMet Board of Directors first adopted the TIP in June 2002.

The TIP relies on long-term goals and strategies developed by Metro, including the RTP. These plans direct development to regional centers, town centers and key corridors. The TIP shows how TriMet will implement the transit portion of the RTP during the next five years.

Regional partnerships and focused investments

TriMet partners with local, regional and state governments and agencies to provide many of the important elements that enhance access to transit, such as roadways, sidewalks, safe pedestrian crossings, priority for transit vehicles, and building codes that promote and enhance pedestrian-friendly areas.

The TIP provides the framework for forming regional partnerships between TriMet and other agencies to improve access to transit and encourage transit-oriented development. TriMet works with local jurisdictions to develop criteria for expanding transit service.

TIP priorities

Within available financial resources, TriMet and its partners balance needs to guide where, when and how to invest transit-related dollars. The TIP priorities are to:

Build the Total Transit System: Enhance customer information, access to transit, stop amenities, frequency, reliability, passenger comfort, safety and security.

Expand high-capacity transit: Invest in MAX Light Rail, commuter rail and streetcar service along key corridors to connect regional centers.

Expand frequent service: Add to TriMet's network of bus lines that run every 15 minutes or better.

Improve local services: Partner with local jurisdictions to improve transit service in specific local area.

Resources

Metro

oregonmetro.gov

TriMet

trimet.org

City Club of Portland

pdxcityclub.org

Coalition for a Livable Future (CLF)

clfutre.org

Friends of Trees

friendsoftrees.org

Organizing People-Activating Leaders (OPAL)

opalpdx.org

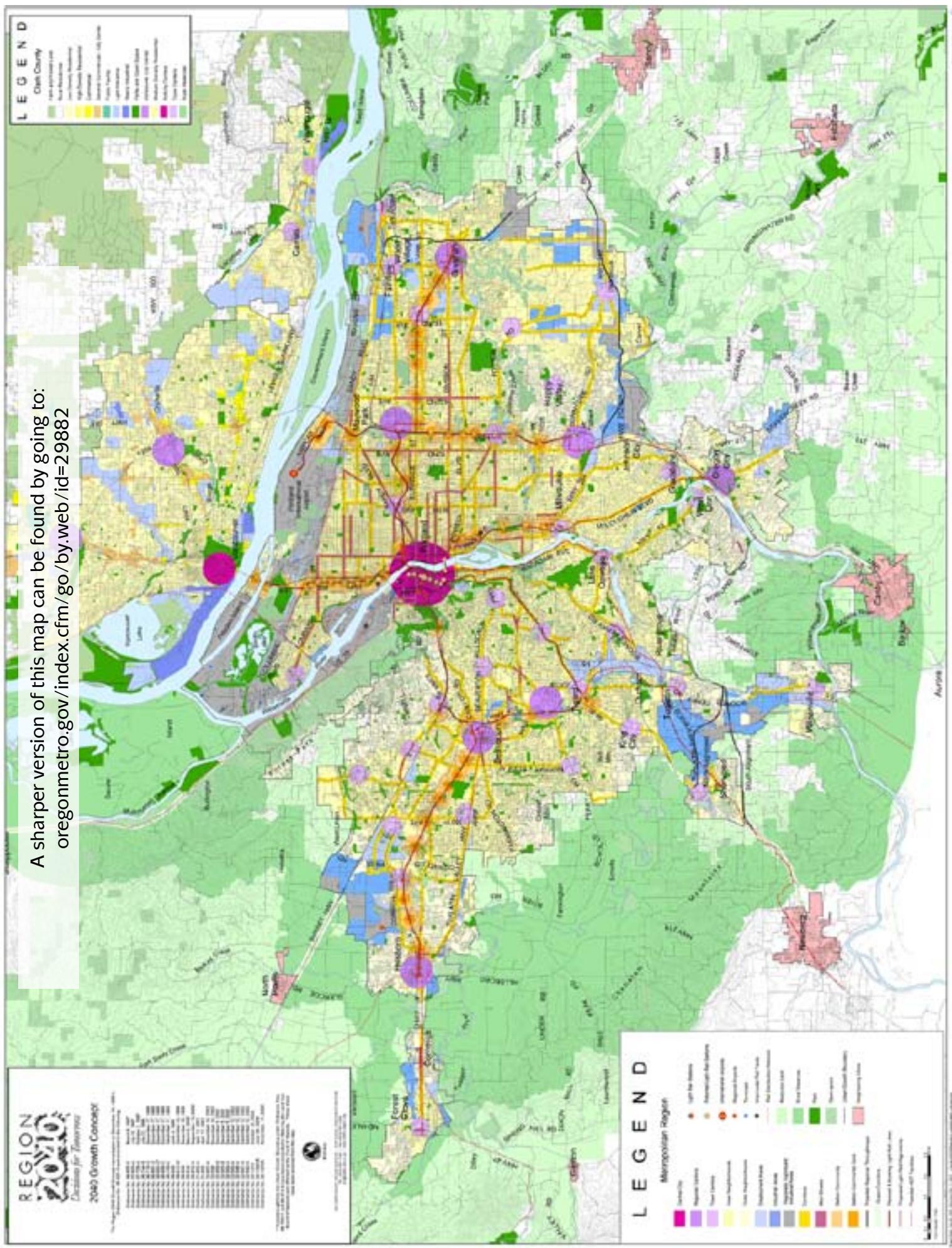
Portland Sustainability Institute (PoSI)

pdxinstitute.org

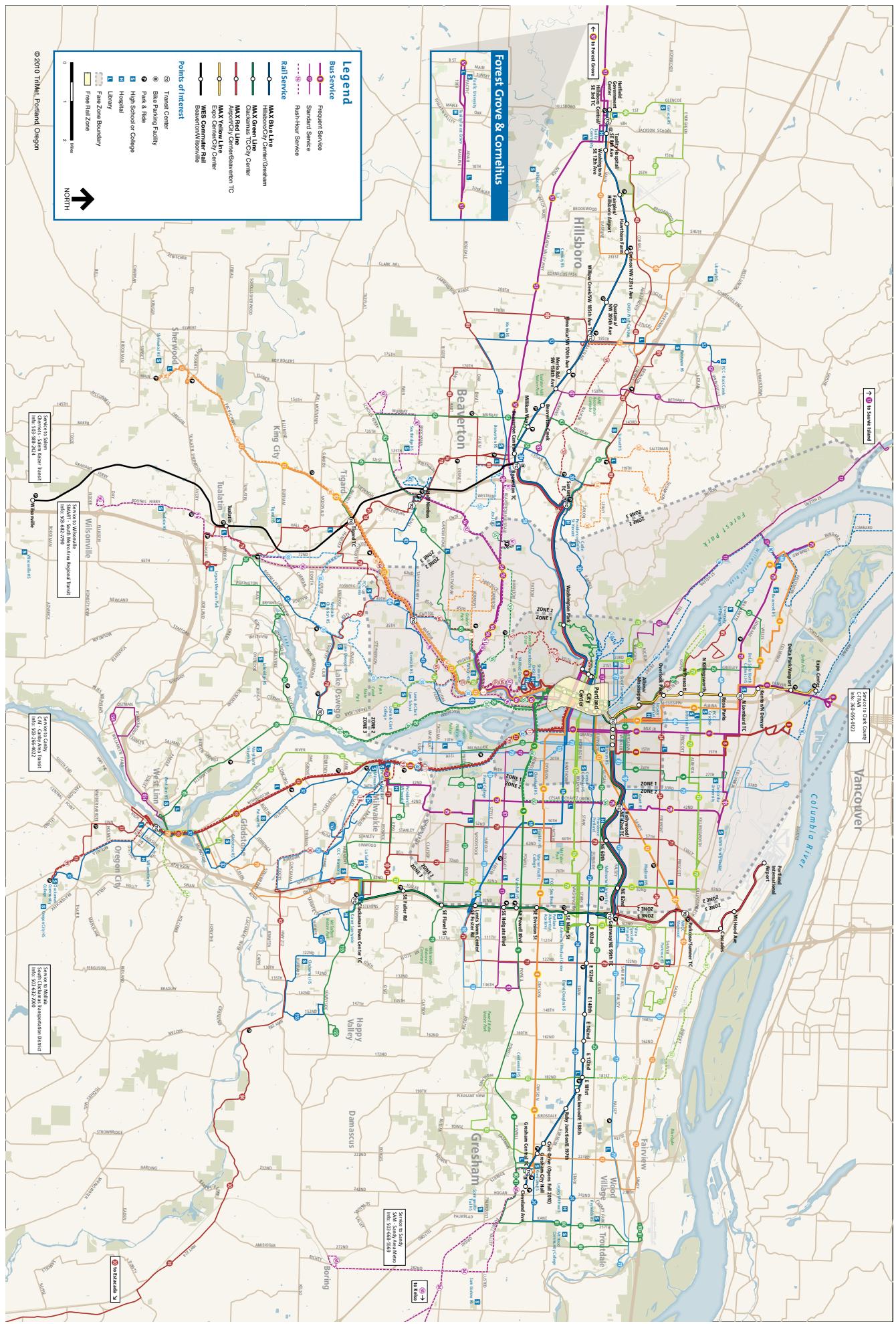
Willamette Pedestrian Coalition

wpcwalks.org

A sharper version of this map can be found by going to:
oregonmetro.gov/index.cfm/go/by.web/id=29882



TriMet System Map



Portland City Center: Portland's central city might be described as a super TOD with excellent integration of transit and mixed-used development throughout downtown.



Chapter Three

Portland City Center

“You have here the basis for civilization on its highest scale, and I am going to ask you a question which you may not like. Are you good enough to have this country in your possession? Have you got enough intelligence, imagination and cooperation among you to make the best use of these possibilities?”

— Lewis Mumford addressing the City Club of Portland, July 15, 1938

Greed drove Portland’s earliest effort to coordinate land use and transportation planning. City founders in the 1850s believed corner lots were more valuable and so endeavored to create more corners by increasing the density of the street grid. Whatever the motive, the distinctively compact 200-foot by 200-foot blocks are credited with driving numerous outcomes—from greater walkability, to less massive building facades, to the length of today’s light rail trains.

Governance

In 1913 voters narrowly approved another unique aspect of the City of Portland—the “commission” form of government. Although common in the 1900s, Portland is the only large American city that has retained this governance structure. The city is led by the Mayor and four Commissioners, all elected city-wide. The Mayor and Commissioners serve both executive and legislative functions. The Mayor assigns each Commissioner bureaus for which he or she is the executive (although supported by professional managers who serve at the leisure of the so-called Commissioner-in-Charge). The Mayor also retains bureaus to create a portfolio that reflects his or her priorities. Commissioners tend to bring forward ordinances on topics that are within the purview of their bureau assignments. Commissioners then have responsibility for implementation.

Created by the voters in 1958, the Portland Development Commission (PDC) has played a major role in keeping Portland one of America’s most livable cities. PDC has taken forward 20 urban renewal plans that have changed the face of the city. Waterfront redevelopment, small business loans, affordable housing, new retail opportunities, transit-oriented development, business recruitment and retention: all this and more make up the day-to-day work of the staff at PDC. PDC is governed by a volunteer Board of Commissioners who are approved by City Council and report

directly to the Mayor. The City Council reviews and approves PDC’s budget. PDC has the power of eminent domain, but has ceded that power in some instances in response to public concern.

Tax increment funds raised through urban renewal districts have provided a significant source of financing for transportation including the Red, Yellow and Green MAX lines and Portland Streetcar. Tax increment funds have also been used repeatedly to build and improve streets for all modes of transportation. Streetscape projects are especially important to support retail and residential development.

Planning legacy

Aside from its form of government, in between the creation of the street grid and the “rebirth” of downtown that began in 1970s, Portland’s history was typical of many American cities. The Willamette River, the spine of commerce, was despoiled. Streetcars that had shaped the city and surrounding neighborhoods in the first half of the 20th century were removed by 1950. In the late 1960s, the city’s privately run bus company, Rose City Transit, went bankrupt. By the late 1970s, Portland violated air quality standards one out of every three days. Although the metropolitan population grew, the downtown residential population declined; there were 28,000 housing units in downtown in 1950 and just 11,000 by 1972. Historic buildings were razed to make way for automobile access and parking.

Portland Downtown Plan

The Portland Downtown Plan, completed in 1972, acknowledged these trends with alarm and proposed far-reaching policies and strategies to turn the tide. The Plan was led by citizen committee, appointed by the Mayor, and served by a handful of staff and consultants. Yet in less than 18 months the committee addressed

a range of land use and transportation issues, proposed major new public investments and identified 21 “imagable” districts within downtown. Some elements of the plan became and remain City policy. For example:

- “Surface parking lots and mechanical garages are regarded as an interim use.”
- “Require private development in the South Waterfront and North Waterfront areas to dedicate a substantial and continuous right of way along the river’s edge for public use.”
- “Develop incentives such as subsidies, tax incentives or increases in density to encourage rehabilitation or new housing construction Downtown.”

The Plan called for many public investments that have been realized in the ensuing decades including the transit alignment on 5th and 6th avenues, a major public square (Pioneer Courthouse Square) and a downtown circulator (manifest as the streetcar). A call for design review to reinforce “Portland character” is also a lasting result of the Plan. Some proposals, such as eliminating auto traffic from much of downtown altogether, are out of planning vogue, but, who knows, may return with such movements as car-free cities.

The removal of Harbor Drive in 1974, which hugged the west bank of the Willamette, and the creation of Tom McCall Waterfront Park in its place, marked the beginning of what is now a Portland habit of public investments that favor people and place-making over cars. The bus mall on 5th and 6th avenues was completed in 1977. In addition to providing a central spine for bus service, the project introduced detailed attention to the public realm from paving treatments to lighting to street furniture. Pioneer Courthouse Square, located west of 6th Avenue between Morrison and Yamhill, was completed in 1984. Despite its presence in an adopted city plan, a public square was not universally favored. Some business interests promoted an enclosed botanical garden with paid admission. Ultimately, the plan for the Square was approved in a 3-to-2 vote of the City Council with the Mayor on the losing side. Pioneer Place, a three-block retail and office development by festival marketplace giant Rouse Development, was completed in the late 1980s.

Central City Plan

The Central City Plan, adopted in 1988, worked at a larger scale than the Downtown Plan in terms of

geographic area, citizen involvement, staffing and timeline. The Central City Plan addressed districts on both the east and west sides of the Willamette River and involved numerous committees and input from 10,000 citizens. The process took more than three years. It is more formal in tone and form than the Downtown Plan, which preceded the statewide land use regulatory requirements adopted by the Oregon legislature in 1973. The Central City Plan was adopted as part of the City’s Comprehensive Plan and resulted in extensive zone changes in the plan area.

Oregon suffered a significant economic downturn in the early 1980s as it transitioned from a resource-based economy. Even in Portland, the contraction of the timber industry had an impact as the executive functions of companies such as Louisiana Pacific and Pope & Talbot vacated downtown office towers. The Central City Plan was a clear statement of the city’s intent to promote growth and remain the economic center of the region. Notable elements include:

- Goal of 50,000 additional jobs by 2010
- Goal of 5,000 new housing units by 2010
- Preservation of Single Room Occupancy units
- Completion of the regional light rail system
- Adoption of floor-area ratios and height limits to regulate new development intensity, supported with illustrations and examples to assist the public to understand this new approach

The Central City Plan called for additional study and solutions for the area’s thorny transportation issues. A particular thorn was the downtown “parking lid” which prohibited the creation of new parking spaces as a response to air quality violations. While the parking lid helped address localized air quality, it stymied downtown growth. In 1995, the city adopted the Central City Transportation Plan (CCTMP).

Three central concepts guided the development of the CCTMP: assuring livability with growth, assuring mobility with growth and assuring livable streets with growth. The CCTMP employs many tools in an aggressive strategy to stimulate Central City development while shifting mode choice away from single-occupancy-vehicle trips to other modes.

The CCTMP expanded parking regulation to all Central City districts. Allowed parking ratios are based on the availability of transit. The regulations recognize different parking needs resulting in different maximum ratios of parking to square

footage of new development for parking that serves all-day commuters versus short-term visitor parking. Special provisions allow the creation of parking to serve the needs of older offices that were built without parking and had difficulties competing with new office buildings for tenants as surface parking redeveloped. This put these historic resources at risk. One key CCTMP strategy is to promote development of new dwelling units. Central City residents can walk, bike or use transit with added benefit of making the central city more lively and diverse. As a result of the CCTMP, most Central City housing can be built without providing on-site parking.

Throughout the 1990s and into the first decade of the 21st century, Portland has undertaken a variety of refinements to the Central City Plan including University District (1995), River District (1995), Goose Hollow (1996), South Waterfront (2002) and Marquam Hill (2003).

Transit investments

The 1972 Downtown Plan declared Portland would first decide the kind of place it wanted to be and then invest in appropriate transportation infrastructure, rather than letting cars dictate urban form. It envisioned a walkable “24-hour downtown” with housing and abundant ground-floor retail to revive the central city. The plan established SW 5th and 6th avenues as the office and retail spine for downtown. It also designated the two avenues as primarily transit streets for buses and the streets on either side of 5th and 6th as primarily auto access streets. This set the tone for development of a balanced regional transportation system.

By 1973, the newly-formed TriMet had completed an Immediate Action Plan and a Master Plan to reverse public transportation's decline in the region. The plans supported concentrating transit service in downtown Portland on a bus-only mall along SW 5th and 6th avenues. The Portland Mall opened in 1978, providing bus service on several blocks of both streets south of Burnside. Light rail service to the City Center began with the MAX Blue Line to Gresham, which opened in 1986. The success of the Mall led to its ultimate extension and reinvention with the addition of the MAX Green Line in 2009. The MAX Blue, Red and Yellow lines serving downtown Portland are described in other chapters.

Portland Streetcar

The Portland Streetcar began service in July 2001, bringing to fruition an idea for an “inner city circulator” first identified in Portland’s 1972 Downtown Plan. Dignitaries and 50,600 citizens participated in a weekend-long celebration of the opening of the first modern streetcar line in the United States.

The streetcar, which shares a lane with cars for much of its alignment, provides an essential link from neighborhoods to the downtown business district, shopping, the arts community and educational institutions. It has encouraged infill development, facilitating new housing in the emerging River District and South Waterfront areas and supporting other planned development in the Central City.

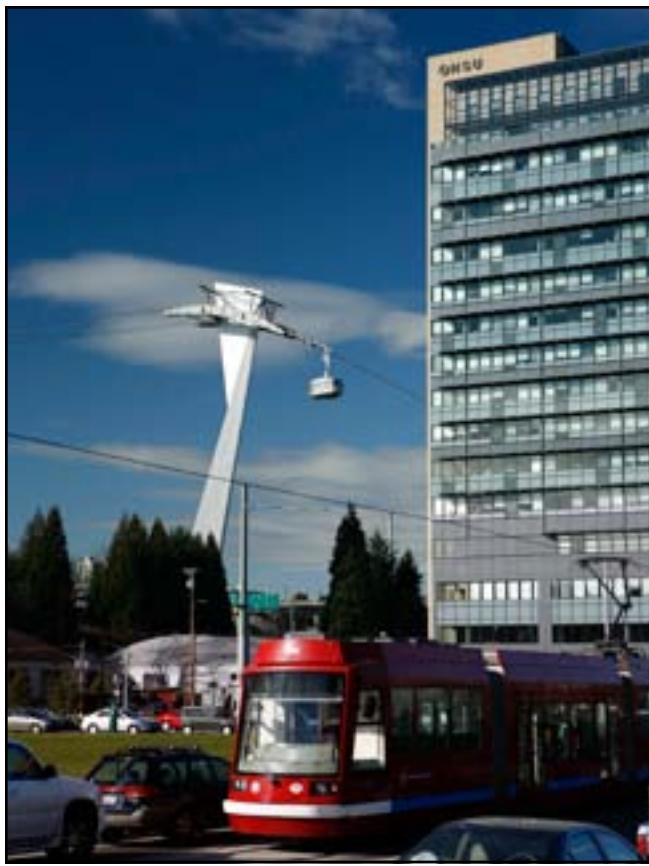
By providing a convenient connection to light rail, the streetcar also builds overall transit ridership.

Eleven years in the making

The Streetcar project was initiated in 1990 when the City of Portland formed a citizens advisory committee comprised of neighborhood activists and business leaders and contracted for a feasibility study of providing rail-based transit as a circulator in the Central City. The study and community support helped secure a \$900,000 grant from the U.S. Department of Housing and Urban Development in 1992, which led to the selection of an alignment in 1994. In 1995 the city issued a request for proposals to design the streetcar line, manage construction and possibly operate the streetcar. The successful bidder was Portland Streetcar, Inc. (PSI), a not-for-profit corporation guided by a board of directors representing both the public and private sectors. PSI, in turn, contracted with technical and project management/financial-planning firms.

The city approved a capital finance plan in 1997. The primary source of funds—\$30.6 million—was the proceeds from revenue bonds sold by the city and backed by net revenues from city-owned parking garages and parking meter income. Other sources were \$9.6 million from a Local Improvement District supported by property owners on the alignment; \$7.5 million from tax increment financing; and \$5 million in federal transportation funds, which were subsequently replaced with regional transportation funds.

Portland Streetcar initially provided service along a six-mile route. In January 2005, construction



Portland Streetcar and the Portland Aerial Tram serve a growing district in the city's center.

began in the South Waterfront District on the \$15.8 million Gibbs extension. This 0.6-mile extension opened in October 2006 and connects directly with the Portland Aerial Tram. Construction on another 0.6-mile extension in the South Waterfront District began in August 2006. This \$13.5 million extension (known as the Lowell extension) opened in August 2007 and encompasses even more of the South Waterfront District in its route.

The Czech connection

PSI selected Czech Republic company Skoda to produce Portland's streetcars. The cars were made at the Skoda factory in Pilzen under a contract with the Inekon Group.

The low-floor, air conditioned cars are 66 feet long and eight feet wide, and can carry up to 140 passengers. Top speed is 31 mph.

Operations

The City of Portland contracts with TriMet to operate the streetcar, and there is a seamless fare system. TriMet pays two-thirds of operating costs, with the balance coming from parking meter revenue, fares and sponsorship promotions.

In fall 2001, there were 3,715 average daily weekday boardings on the streetcar line. In spring 2010, average daily weekday boardings increased to 12,464, which reflected both new development along the line and extensions to the route.

Portland Aerial Tram

With more than 11,000 employees, the Oregon Health Sciences University (OHSU) is one of Portland's largest employers. The OHSU campus is located on Marquam Hill, south of downtown Portland. Although the hill is a beautiful setting, growth there is constrained by land availability, a limited road transportation network and potential environmental impacts. As OHSU began to plan its next 30 years of growth and its strategy to become one of the top 20 nationally ranked medical research institutions, it identified interest in creating a satellite campus less than a mile away in the South Waterfront District. Thus, the idea for the Portland Aerial Tram was born.

Design and construction

After years of studies on how to best connect the satellite South Waterfront campus with the central Marquam Hill campus (studies that included possible transportation methods such as shuttle buses, gondola lifts, tunnels and even funiculars), OHSU decided that an aerial tram would be the best approach. The City of Portland accepted OHSU's tram proposal in July 2002, and designs for the tram began immediately afterward. Construction began in August 2005, and the tram opened to the public on January 27, 2007.

At a height of 500 feet and a length of 3,300 feet, the tram's cables run between the South Waterfront terminal adjacent to the OHSU Center for Health & Healing and the upper terminal at the Kohler Pavilion on OHSU's main campus. The tram cars depart every five minutes and take three minutes for a one-way trip at an average speed of 22 mph. These two tram cars can hold up to 78 passengers per car. The tram was designed by Angelil/Graham/Pfenniger/Scholl, based in Zurich, Switzerland, and Los Angeles. Gangloff Cabins of Bern, Switzerland, made the custom-designed cars, which meet rigorous Swiss standards for aerial tramways.

Sustainability

The Portland Streetcar stops at the corner of SW Moody Avenue and Gibbs Street, across the street from the South Waterfront tram terminal. Showcasing sustainability at its best, the tram will

eliminate an estimated two million vehicle miles annually that otherwise would be traveled in the city, thereby saving 93,000 gallons of gas and reducing greenhouse gas emissions by more than 1,000 tons annually.

Cost, ridership and economic growth

The total construction cost of the tram was \$57 million, with OHSU providing \$40 million. A total of 125,158 people rode the Portland Aerial Tram in February 2007, nearly twice the 66,000 one-way riders expected based on preliminary projections. Through the end of August 2009, cumulative ridership on the tram exceeded 4.75 million rides. Twenty years from now, when the South Waterfront is more mature in its development, about 5,500 OHSU-related round trips are expected each day.

Almost \$2 billion in new development at the South Waterfront District will be leveraged by the initial tram investment, resulting in 5,000 new jobs and 2,700 new housing units during the next decade, and 10,000 jobs and 5,000 housing units during the next 20 years.

TriMet MAX Green Line

Background

Since the beginning of light rail planning in the Portland region, transportation planners have worked toward reaching two goals—bringing light rail service to Clackamas County and creating a north-south light rail alignment in downtown Portland.

In 1983, the completion of the northern portion of Interstate 205 included a transitway parallel to much of the highway as it passed through Multnomah County. Meanwhile, the Portland Mall opened in 1978, as outlined above, providing bus service with a dedicated alignment on several blocks of 5th and 6th avenues in downtown Portland.

As the years passed, the need for high capacity transit to Clackamas County and a new downtown alignment only increased. Clackamas County became one of the region's fastest growing areas, while Portland State University (PSU) at the southern end of downtown became the number one destination in the transit system. In addition,

the expansion of light rail was identified as a critical part of a growing transportation system as four light rail lines on the one existing downtown alignment had reached capacity, and the region's population was expected to increase by one million new residents by 2030.

Out of discussions between regional growth and transit planners came the innovative idea to combine both alignments into one light rail line via the Banfield alignment along Highway 84, thus providing riders with a multitude of destination, connection and multimodal possibilities.

Innovative planning

Bringing light rail to the Portland Mall required relocating utility and then laying tracks. Plans also called for refurbishing aging brick intersections and installing new ones at some locations. All of this activity meant that buses could not use 5th and 6th avenues during the two-and-a-half years of construction. After conducting extensive public outreach and traffic analysis with the City of Portland, TriMet created a bus relocation plan.

Twenty-eight bus lines that used the Mall were temporarily moved to other downtown streets, the bulk of them moving to 3rd and 4th avenues. The temporary routes included signage and shelters. When major construction ended in May 2009, buses moved back to the refurbished 5th and 6th avenues, and 3rd and 4th avenues were returned to their previous condition.

Buses now travel the entire length of the Mall with motorists and cyclists, sharing transit-only lanes with light rail trains for the first time. The downtown community had expressed the desire that both avenues be multi-modal, yet it was simultaneously necessary to prevent private traffic and transit from impeding one another.

The project developed a unique system that allows buses and trains to move in and out of transit lanes in order to access and leave scheduled stops at the curb. Transit lanes are located on the right side of both 5th and 6th avenues and are reserved solely for buses, trains and paratransit vehicles. Meanwhile, motor vehicles and bikes have a dedicated lane on the left side of both streets, allowing transit and private vehicles to proceed without affecting one another's travel time.

Taking care of business

Project construction on the Mall alignment took place in the heart of the region's central business district, and innovative methods were employed to minimize disruptions to businesses. Project efforts included one-on-one support for businesses and property owners, encouragement to buy goods and services downtown, a website that tracked construction progress and weekly construction updates emailed to thousands of downtown businesses, property owners and residents.

Efficient construction

The project's light rail construction began in February 2007. On the Portland Mall, TriMet worked closely with its contractors to speed construction and ensure that customers always had access to businesses. Crews worked in three to four block segments for up to eight weeks, then moved to the next work zone to minimize construction impacts on businesses and residents.

Portland Mall Business Support Program

The Portland Development Commission (PDC), TriMet and Portland State University (PSU) joined together to create the Portland Mall Business Support Program. This program for ground floor, locally-owned businesses with less than 50 employees included technical assistance, low interest loans and consulting services. This assistance was designed to help business owners bridge a disruption in revenues caused by construction and leverage the improved retail market with the opening of the light rail line.

Portland Mall Management Inc.

Given the Portland Mall's prominence in the center of the downtown retail and business core, TriMet, the City of Portland, the Portland Business Alliance and PSU provided the funding necessary to create Portland Mall Management Inc. (PMMI), a nonprofit to manage the Portland Mall. During the course of the project, PMMI provided input on all aspects of the design, budget and schedule, particularly engineering and management strategies. PMMI continues to provide centralized management and stewardship focus for the Portland Mall.

Additionally, downtown property owners elected to tax themselves to fund even more enhancements to the Mall and surrounding blocks.

Block By Block

The project refurbished or replaced many of the Mall's transit amenities, including brick sidewalks and intersections, bus shelters, trashcans and bike racks. The project and its stakeholders realized, however, that revitalization of 5th and 6th avenues also should include the many business and properties lining both streets to make them more vibrant, economically competitive and inviting.

To address this need, TriMet and PDC created the Block By Block (BBB) program in 2006, an innovative example of a public-private partnership. BBB employed financing assistance, design consultation and city facilitation tools to encourage private investment in façade improvements. The program approached property owners and business along the 117 block faces on 5th and 6th avenues. As of August 2009, the BBB program realized a \$9.10 private sector investment for every \$1 granted from PDC. For a number of projects, a PDC grant of \$24,000 leveraged \$400,000 to \$1 million from the property owner.

Expanding bike connections

The U.S. Census Bureau reports that 6.4 percent of Portlanders commuted by bike in 2008, more than in any other major U.S. city. In addition to including traditional connections to bus lines and Park & Ride facilities, the Green Line project sought to expand transit options for cyclists.

Near 5th and 6th avenues in downtown Portland, the project has added 200 bike parking spaces, with more on the way. This includes individual bike staple racks and four bike oases, which provide covered bike parking.

Tying the region together

The \$575.7 million in funding for Green Line planning and construction came from several project partners—\$413.4 from the federal government and \$162.3 million from state and local sources.

Opened for service in September 2009, the MAX Green Line ties the region together, allowing light rail riders to make connections between Clackamas County and Gresham, the airport, Washington County, North Portland and downtown Portland.

Transit-Oriented Development

Portland's central city might be described as a super TOD (transit-oriented development). To explore the streets of downtown is to see "three Ds" of TOD—density, design and diversity—in action. Mixed-use buildings, attention to the pedestrian realm, parks, commercial services and robust transit service come together to create a lively 24-hour city.

What follows are accounts of two new, standout, central city districts—The Pearl and the South Waterfront—followed by descriptions of a number of individual TODs located on both side of the Willamette River. More information about individual buildings can be found in tours at the end of the chapter. Nevertheless, these descriptions only touch on a small portion of the remarkable projects that remade Portland during the last 20 years, reminding us, perhaps, that 'it takes a village' to make a TOD.

Pearl District

The creation of the Pearl District represents one of the most dramatic transformations in Portland's Central City during the 1990s and continuing today. The Pearl District, part of the River District, is approximately 90 blocks bounded by the Willamette River and Naito Parkway to the north, Burnside Street to the south, Broadway Avenue to the east and I-405 to the west. Formerly an industrial area, functionally obsolete industrial buildings and vacant lots have become a lively and intense mix of housing, employment and retail providing a major destination and source of riders for the Portland Streetcar.

Development agreement

A local developer's purchase of a defunct 34-acre rail yard known as the Hoyt Street Yards became the catalyst for planning efforts and investments. Milestones in the process included a development plan adopted in May 1994, a finance plan adopted in December 1994 and a development agreement adopted in 1998. The development agreement tied increased housing density to public improvements as follows:

- Removal of a bridge off-ramp bisecting the rail yard property triggered an increase in minimum housing density from 15 units per acre to 87 units per acre.
- Construction of the streetcar required housing density to increase another 22 units an acre

- Completion of park improvements on land conveyed by the developer added another 22 units per acre to any remaining undeveloped land, bringing the total housing density to 131 units per acre.

In addition to increasing density, the development agreement required the developer to donate 1.5 acres of park land and approximately six acres to create a public street grid. The developer was also responsible for the cost and construction of local streets as well as being a partner in meeting the City's affordable housing goals. New development is subject to design review.

From plan to reality

Planning and investment in Hoyt Street Yards spurred interest in adjacent blocks. The Pacific Northwest College of Art moved to the Pearl in 1998, energizing the Pearl's emerging art gallery scene. Portland advertising firm Weiden+Kennedy completed its headquarters in a renovated warehouse building in 1999. The same year, Powell's Books—one of the nation's largest independent booksellers—completed an expansion. Six residential projects comprising 370 rental and condominium units were completed in 2000, with the majority of the units pre-leased or pre-sold. The Portland Streetcar, which runs on NW 10th and 11th through the Pearl District, opened for service in 2001. In 2002, Jamison Square was completed and a Whole Foods market opened as part of a multi-block redevelopment of a former Blitz-Weinhard brewery.

In just the eight years between 1994 and 2006, more than 7,400 new housing units served by transit and local services and adjacent to the traditional central business district were created and this growth has continued. The reuse of these blocks makes a major contribution to Portland's growth management efforts. Densities across the district generally exceed 120 units per acre. While condominiums in the Pearl established some of Portland's highest housing prices, three projects serve low-and very-low-income households.

Moreover, the Pearl District presents an urban lifestyle not previously available in Portland, but perfectly suited to single and small households, including so-called "empty-nesters" who are leading the renaissance of cities. Far from forcing people out of traditional single-family homes or an auto-dominated lifestyle, the Pearl demonstrates a



Public and private investments transformed the Pearl District from a defunct railyard and underutilized warehouses to a pedestrian-friendly and transit-oriented district.

market hungry for a pedestrian-friendly alternative that might not have been realized without thoughtful growth management and transportation strategy.

Transit access

Portland Streetcar stops on NW 10th and 11th avenues between Burnside and NW Northrup; Bus lines 17 and 77.

South Waterfront

The South Waterfront District, a 130-acre area located on the Willamette River just south of downtown Portland and east of I-5, is the last large undeveloped area within Portland's Central City. Few businesses remain in this former industrial area. The South Waterfront Plan, adopted in 2002, calls for a sustainable, urban-scale development that balances commercial and institutional projects, and affordable and market-rate housing. The Plan also incorporates designs for public amenities, including public streets, a spectacular greenway and a parks system.

This new district will provide for 10,000 new jobs and up to 5,000 new housing units (including 788 affordable units). A major driver of growth for the district is Oregon Health and Science University (OHSU), which is constrained on its main campus on Marquam Hill. The Portland Aerial Tram was conceived as a means to link OHSU to South Waterfront, an area where it could expand. OHSU, already Portland's largest employer with a workforce of 11,500, plans to further expand its

campus, creating 6,000 new jobs within the next two decades.

In addition to the tram, the South Waterfront District boasts several modes of convenient transportation, including Portland Streetcar and bus routes. Light rail service to the area is being planned as part of the Portland-Milwaukie Light Rail project. As the zoning code for the area imposes limits on the creation of parking, alternative transportation is vital to the South Waterfront District.

Keeping it green

The plan calls for benefits to the environment by:

- capping and development of abandoned and contaminated industrial land
- stabilizing the riverbank that protects the Willamette River from potential contamination in the event of a flood
- improving air quality by removing contaminated piles of industrial fill and sawdust materials

The revitalization of the area goes even further than the initial clean-up process and includes plans for several environmentally friendly projects. For instance, the Willamette River Greenway, proposed by Governor Tom McCall in 1973, will average 100 feet in width along its 1.2 miles in South Waterfront. It will be accessible to the public via two trails: one for pedestrian traffic and one for bicycle traffic. The greenway will encourage alternate modes of transportation, create recreation opportunities, allow for residents and

The South Waterfront Plan calls for sustainable, urban-scale development that balances commercial and institutional projects, and affordable and market-rate housing.



office workers to enjoy the beauty of the river and its ecosystems, and improve aquatic and wildlife habitat.

When OHSU broke ground in 2003 for its first building in the South Waterfront District, it paved the way for other eco-friendly developments to emerge in the area. OHSU's Center for Health and Healing earned the United States Green Building Council LEED (Leadership in Energy and Environmental Design) Platinum rating, the highest LEED rating a building can receive. This \$145.4 million building, opened in October 2006, is a 400,000-square-foot, 16-story, mixed-use facility, which includes laboratory space for the biomedical engineering program, eight floors of physician practices, surgery suites and imaging facilities, and a health and wellness center complete with a gym, lap pool, therapy pool and spa. Thanks to innovative construction techniques, the building's operations have energy savings of 60 percent, as well as a bio-treatment system that treats up to 30,000 gallons a day and an extensive utilization of eco-friendly roofs.

Looking forward

Spring 2006 saw the completion of the Meriwether Condominiums, and more mixed-use buildings have since opened, including the John Ross and the Atwater Place condominiums. Studies show that in a space that covers less than one percent of the area of Portland, the South Waterfront District will assume 4.7 percent of the city's job growth and 2.5 percent of housing and residents, and potentially add more than 4.4 acres of open space for the public. These figures demonstrate terrific potential for helping to accommodate growth

consistent with Metro's 2040 Growth Concepts Plan focus on strong centers.

Transit access

Portland Streetcar SW Gibbs stop; Portland Aerial Tram; Line 35.

The Merrick

The Merrick is a six-story, mixed-use, transit-oriented development that encompasses an entire city block. The Merrick is located in the Lloyd Center/Rose Quarter area of Portland. There are 185 rental apartments in the building, along with 15,000 square feet of ground floor commercial space and 206 underground parking spaces.

One primary purpose of the transit-oriented development program is to create higher density, mixed-use developments near transit stations that will increase transit ridership. The Merrick is within a short walk from many regional destinations; with direct access to all three MAX light rail lines and five frequent service bus lines

A 2005 survey of 76 Merrick households found that many had selected the development for reasons other than transit access, but reported that their travel behavior changed after moving to the building. The study conducted by Dr. Jennifer Dill of Portland State University for Metro found that:

- 29 percent of residents switched from a private vehicle to transit, walking, or cycling for their primary commute mode from their previous place of residence. 44.6 percent of the residents said that they drive "a lot less now" compared to when they lived at the previous residence.

- 41.9 percent of the residents said that they use public transit “a lot more now” compared to when they lived at their previous residence.

Location and Transit Access

1239 NE MLK Jr. Blvd, Portland

MAX Blue, Red and Green lines; Bus lines 6, 8, 70, 73 and 77.

Project statistics

Total housing units: 185

Parking ratio: 1.1 spaces/unit

Office/retail space: 15,000 sq. ft.

bSIDE 6

bSIDE 6 is one of only two office buildings located out of the historic central business district of Portland that have been built with no parking; the other is the Burnside Rocket. Located on a 3,800 square foot lot, the building contains 27,000 square feet of restaurant, retail and creative office space. Work studios have operable windows and are filled with natural-light. Units range from 692 square feet to 3,640 square feet, including exterior balconies with cityscape views.

bSIDE 6 is designed with creative “street rooms” that project over the sidewalk, helping to narrow the feel of East Burnside Street. The “street rooms” provide a unique perspective on the street, extending views and providing an architectural link to the arcades projecting over the sidewalk on many historical buildings in the East Burnside area.

It has the highest floor area ratio of any transit-oriented development funded by Metro’s TOD program (seven to one). With a focus on urban livability, the building is located near frequent-bus lines and is a block from the Eastside Streetcar loop scheduled to begin service in 2012. Accommodations for bicycles in the lobby and as an optional amenity in each unit are available.

Innovative features:

- Dry well to manage stormwater runoff
- 7.0 floor area ratio
- Building extends over the right of way providing additional interior space and protection from the elements for pedestrians

Location and transit access

524 E Burnside Street, Portland, OR 97214

Lines 6, 19, 20 and 12.

Project statistics

Site area: 3,800 Sq. ft.

Retail/commercial space: 27,000 Sq. ft.

Parking: no on-site spaces

Completion: 2010

Burnside Rocket

The Burnside Rocket is a new mixed-use building located at the corner of E Burnside Street and NE 11th Avenue in Portland. Formerly a vacant lot, the 3,800 square foot site is adjacent to three frequent service bus lines. The four-story building includes 16,500 square feet of commercial and office space, with outdoor terraces on each level. Building uses include a ground-floor pub, two floors of creative office space, a top floor restaurant and a rooftop garden.

The Burnside Rocket takes a whole building approach to energy efficiency by integrating several green building measures including a Durisol wall forming system, hollow core slabs, ground source heat pumps, operable windows, operable window shades as an art exhibit, and an “edible roof” garden supplies fresh produce for the top floor restaurant. It is also the first office building built outside of the downtown core without parking.

Location and transit access

1101 E Burnside Street, Portland

Lines 19, 20, 12 and 70–12th Ave.

Project statistics

Site Area: 3,800 Sq. Ft.

Retail/Commercial Space: 16,500 Sq. Ft.

Parking: No on-site parking

Museum Place

Located in the heart of Portland’s cultural district and the western portion of the South Park Blocks Urban Renewal District, this multi-development project satisfied a need for increased density and more diverse uses within these once underutilized downtown blocks. The developments include a new urban grocery store that’s part of a seven-story building with 140 apartments; a 132-unit apartment building for very-low-income people, to replace dilapidated housing; an extensively renovated YWCA; and a 223-unit luxury condominium. Portland Streetcar and nearby bus service connects the project to the greater downtown area.

Museum Place Lofts and Townhouses

Site area: 40,000 sq. ft.
Housing type: 140 rental units; 28 at 50 percent median family income
Unit sizes: 560-1,330 sq. ft.
Density: 152 units/acre
Parking: 220 total parking (110 for Safeway and 110 for residents)
Commercial: 48,000 sq. ft. Safeway store; 1,100 sq. ft. barber shop
Completion: September 2003

St. Francis Apartments

Site area: 13,000 sq. ft.
Housing type: 132 rental units at 30-80 percent median family income
Unit sizes: 560-1,330 sq. ft.
Density: 440 units/acre
Commercial: 6,000 sq. ft.
Completion: December 2002

YWCA

Site area: 23,000 sq. ft.
Building: 65,000 sq. ft.
Renovation completion: December 2002

Eliot Tower

Site area: 46,000 sq. ft.
Housing type: 223 condominium units
Density: 210 units/acre
Commercial: 3,350 sq. ft. ground-floor retail
Completion: Summer 2006

Madison Place

Site area: 6,500 sq. ft.
Building: 32,000 sq. ft.
Uses: Ground-floor retail, four floors of office condominiums
Completion: Fall 2006

Development was jump-started when Safeway's management approached Sockeye Development LLC with the desire to replace its old downtown grocery store. The outdated store was considered by many residents to detract from the residential experience downtown. Sockeye and GBD Architects worked with Safeway to create a LEED-certified mixed-use building with Safeway Food and Drug occupying the ground floor, mezzanine level and underground parking. The new building is one block south of the old store. The project was phased to provide uninterrupted grocery service.

Safeway is topped with 140 market-rate rental units; 28 are restricted to households earning less than 50 percent of area median income.

The St. Francis Apartments and YWCA Downtown Center shared the block north of the old Safeway. The St. Francis provides studio apartments for very-low-income people. The old apartments were demolished and new units constructed while preserving the same affordability. During construction residents were relocated and offered first opportunity to move back to the St. Francis.

The YWCA conducted a private campaign to raise \$8 million to renovate its facility, which now provides a full-scale health and fitness facility, a Loaves & Fishes meal site and a senior center.

Constructed on the old Safeway site, the Eliot Tower project introduces luxury condominiums to downtown. A new pedestrian plaza spans the north side of the Eliot Tower to provide mid-block access to the Portland Art Museum's plaza.

Opened in 2006, Madison Place is a five-story condominium office building with ground-level retail. Touted as Portland's first office condominium project, it completes this landmark three-block redevelopment project.

Location and transit access

Three blocks bounded by SW 10th and 11th Avenue and SW Columbia and Main Street. Art Museum streetcar stop; bus lines 6, 68 and 58.

Resources

Transit

Portland Streetcar
portlandstreetcar.org

Portland Aerial Tram
portlandtram.org

Planning and management

Downtown Plan, Central City Plan, Central City Transportation Plan, Central City Design Guidelines
tinyurl.com/pdxplansguidelines

River District (Pearl District)
Urban Renewal Area
pdc.us/ura/river.asp

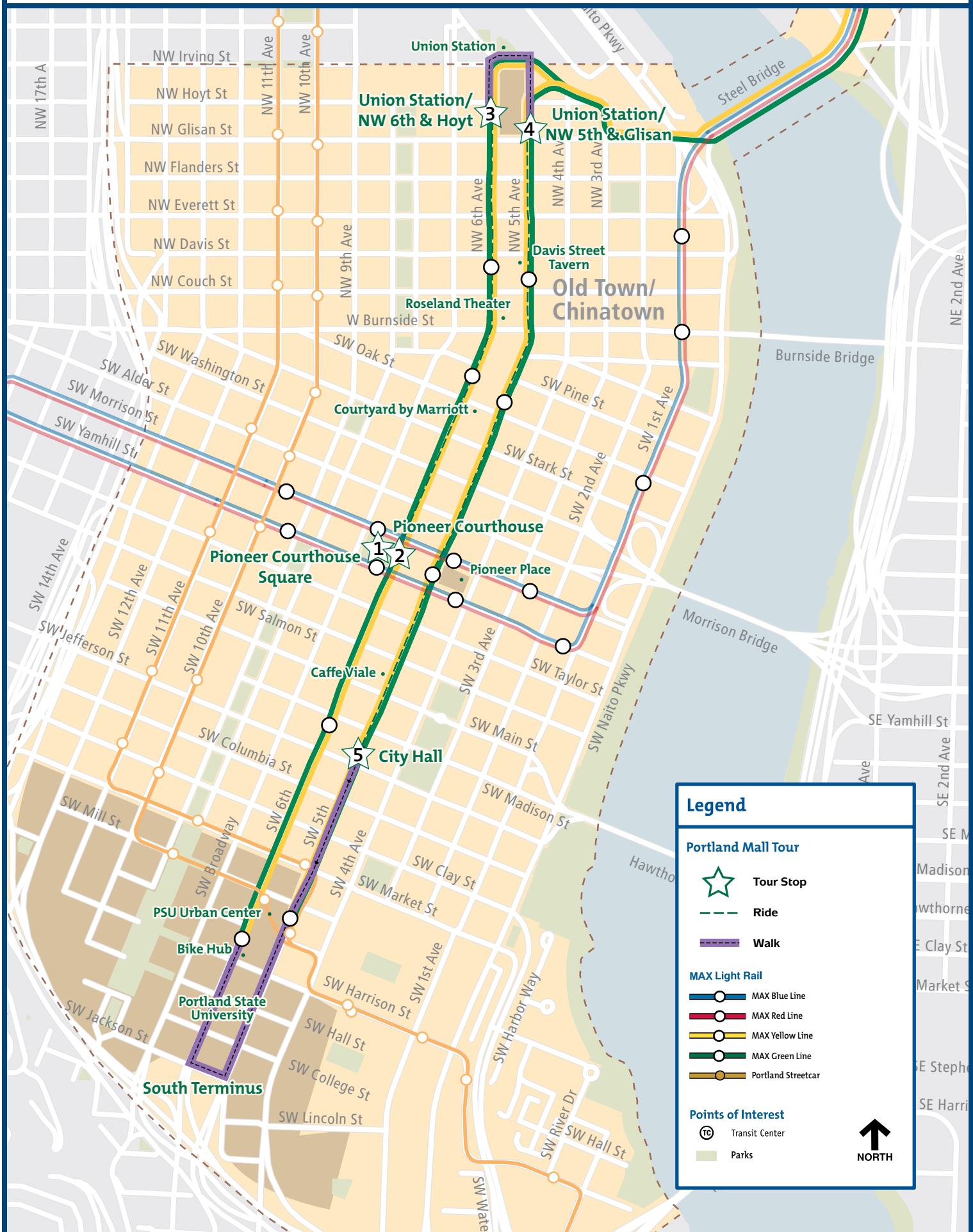
North Macadam (South Waterfront)
Urban Renewal Area
pdc.us/ura/sowa_n-macadam.asp

Portland Mall Management, Inc
portlandmall.org

Transit-oriented development

Brewery Block Four
tinyurl.com/breweryblock4

Portland Mall Tour



Portland Mall Tour

This tour features the Portland Mall located on 5th and 6th avenues between Portland State University and Union Station. The tour provides a street-level view of the integration of TriMet's bus and MAX Light Rail systems and how transit supports a vibrant city center. The tour will take approximately one hour and occurs in the Free Rail Zone—a ticket is not required to board a streetcar or a MAX train.

1. Start your tour at Pioneer Courthouse Square, located between SW 6th and SW Broadway and Yamhill and Morrison streets. Affectionately known as *Portland's living room*, Pioneer

Courthouse Square is a public space occupying a full city block in the center of downtown Portland. In 1969 this block was slated for an 800-space parking garage for the Meier & Frank department store. The city eventually purchased the land from the company, launched a national design contest and opened the square to the public in 1984. The square also serves as a transit hub for the region—all four MAX lines stop adjacent to the square and 17 bus lines stop within a few blocks of Yamhill and Morrison streets.

Portland's 1972 Downtown Plan called for the designation of 5th and 6th avenues as transit streets. The "transit mall" was completed in 1977, providing a spine for bus service downtown and limited private vehicle access. While the pedestrian realm was generous and meticulously designed, cycling was prohibited.

Over the years, the Mall lost its luster as no single entity held responsibility for the upkeep and modernization of its various elements. Additionally, desire grew for light rail service to run in a north-south direction to complement the existing east-west lines.

Following an extensive design process, MAX light rail was introduced and the streets are now called the Portland Mall. The Green Line opened in September 2009 and operates on this alignment with the Yellow Line and up to 90 buses an hour, creating a unique corridor where transit vehicles weave along 57 blocks of 5th and 6th avenues. With a few exceptions, the right two lanes of the Portland Mall are reserved for transit. Private vehicles and cyclists share the left lane for the length of the Mall.

A bus or MAX stop is located on nearly every block and stops for a particular line are spaced three to five blocks apart. Every stop is at grade, making them accessible for seniors and people in mobility devices. With the integration of modes, safety has not been compromised and both transit modes continue to appeal to riders. Less than a year after the MAX Green Line opened, TriMet provided more than 31,000 rides each weekday on 5th and 6th avenues, 54 percent of which are bus rides. Throughout the region, more than 75 percent of TriMet's most frequent riders use both bus and MAX service.

Adding light rail to the Portland Mall catalyzed revitalization in this corridor. Downtown property owners voted to tax themselves as part of a Local Improvement District to fund numerous enhancements to the project such as expanded brick intersections, upgraded shelters and expanded bike parking.

Between 2007 and 2009, public and private developers invested nearly \$1.6 billion in the downtown core by restoring old buildings, renovating storefronts and building new structures. One of the most notable projects is the complete renovation of the former Meier & Frank flagship store at SW 6th and Yamhill. Re-opened in 2008, the first five floors of the building house Macy's, while the top nine floors are occupied by the luxury Nines Hotel and two stylish restaurants, Urban Farmer and Departure.

Before you board your train, take note of the shelter design, the most visible and discussed design element of the new Mall. The original 1970s shelters provided good weather protection, but the design had aged. You will see one of these shelters later in the tour—it was converted into a coffee shop.

2. Board MAX Yellow Line or Green Line on SW 6th in front of Pioneer Courthouse. New public art, real-time arrival displays, storefront improvements, transparent shelters and new development are among the results of the Portland Mall Project. Downtown business leaders felt the Mall shelters' time had passed, making them an impediment to a vibrant retail district. The new shelters are transparent, provide better lighting and protect riders from inclement weather. They include stainless steel rafters and glass panels

that can easily be replaced if they are damaged. The stainless mesh columns include LED lighting. The shelters also include real-time arrival screens, a priority for riders and business leaders. Less time waiting at your stop leaves more time for shopping. The new shelters were integrated throughout the Mall and at many of the cross-mall stops.

On the east side of SW 6th south of Morrison is Norman Taylor's *Kvinneakt*, also known as *Expose Yourself to Art*, one of more than 40 sculptures in the Portland Mall's art collection.

The 256-room Courtyard by Marriott hotel at SW 6th and Oak is among the most significant new additions to the district. For 17 years, the multi-story building occupying this space was used as storage for office furniture. After light rail construction began, the building was bought and converted into this hotel. The building received LEED Gold certification after the hotel opened in 2009.

North of Burnside is the Roseland Theater, a 1,400-seat concert venue that was among the many businesses that received a facelift during the Portland Mall project.

3. Deboard at Union Station/NW 6th and Hoyt.

The Green Line was specifically intended to provide light rail access to Union Station to connect thousands of daily Amtrak train and Greyhound bus patrons. Walk north to the Union Station entrance. Opened in 1896, the building is placed on the National Register of Historic Places. It was renovated in 1996.

Across the street, the Resource Access Center (RAC) began construction in 2009. The \$47 million project is an implementation strategy of the City of Portland's 10-Year Plan to End Homelessness. It includes a 90-bed men's shelter, 130 units of rental housing, and services that include a barbershop, a laundry, and job and housing assistance. A 3,285-square-foot interior courtyard provides a place for people without homes to be during the day. The center is a partnership among the city, the Housing Authority of Portland and Transition Projects Inc., a nonprofit organization, who commissioned Holst Architecture for the project design.

Just north of the station is The Yards at Union Station, one of a number of apartment complexes within walking distance of the area. A pedestrian bridge provides a connection across the railroad

tracks between the complex and downtown. After touring the building, walk south on 5th Avenue to the MAX Station at NW 5th and Glisan.

4. Board a Green or Yellow Line train to Portland State University. This section of the alignment travels through the Old Town/Chinatown neighborhood, which includes an eclectic mix of restaurants, local retail shops, coffee houses, apartments, condominiums and social service agencies. The neighborhood also is attracting new, hip restaurants. At NW 5th and Davis is the Davis Street Tavern, whose owners chose this location in part because of its proximity to the MAX lines.

The area south of Burnside is the region's central business district, featuring high rises, government buildings, restaurants, hotels, and a mix of local and national retail stores. On the west side of SW 5th at Burnside is the 42-story US Bancorp building known as Big Pink. Designed by Skidmore Owings Merrill with local architect Pietro Belluschi consulting, it opened in 1983. On the east side of SW 5th at Oak Street is one of the city's first parking lots to convert primarily to a food cart hub catering to the lunch-time crowd. The colorful railing adjacent to the cart district is *Reading the Street* by Mark Smith, one of the art installations supported by the Mall project.

Continuing south, the stop between Yamhill and Morrison is across the street from Pioneer Place, a multi-level indoor mall featuring national retail chain stores developed by the Rouse Company.

Retaining some of the history from the original 1970s transit mall was an aspiration of many of the Portland Mall Project's ardent supporters. To that end, one of the original Mall bus shelters was repurposed as a micro-cafe as part of revitalization efforts. Caffé Viale is located on the west side of 5th Avenue just north of Salmon Street.

Caffé Viale is part of the downtown business community's larger strategy to build and maintain a vibrant business district on the Portland Mall. To that end, business leaders working in partnership with the City of Portland and TriMet created Portland Mall Management, Inc (PMMI), a non-profit, to assume long-term stewardship for the Mall and guarantee the resources necessary to maintain the Mall in an "as constructed" condition. Through a contractual agreement and with the support of property and business owners, PMMI provides ongoing cleaning, daily infrastructure maintenance, security services and promotional events for 5th and 6th avenues.

South of Main on the east side of 5th is the Portland Building, designed by Michael Graves and ornamented by *Portlandia*, the second largest copper sculpture in the United States.

5. Get off the train at Jefferson Street across from City Hall, a four-story Italian Renaissance-style building. Completed in 1895, the building was added to the National Register of Historic Places in 1974. It has gone through several renovations, with the most recent overhaul completed in 1998 to upgrade it to modern seismic and safety standards.

The building adjacent to the MAX station, the PacWest Center and the high-rise across on the SE corner of 5th and Jefferson, the Wells Fargo Tower, demonstrate post- and pre-pedestrian oriented design standards. While PacWest meets contemporary requirements to activate the street with ground floor retail and outdoor seating, Wells Fargo is a tower surrounded by a moat, a common orientation in the 1970s.

Continue walking south. On the southwest corner of 5th and Clay is Hotel Modera, a boutique hotel, formerly a Days Inn, which was renovated at the same time the Portland Mall was being built.

The blocks between Market and Mill are designed to accommodate auto-drop offs for the adjacent St. Mary's Academy, the Portland Streetcar and MAX trains. TriMet's willingness and skill at accommodating users needs along the Mall was critical to maintain support for the project.

The southern section of the Portland Mall is built largely around the Portland State University (PSU) campus, which has the highest enrollment of any university in the state. It's also the number one transit destination in the region. With limited parking and student housing on campus, expanding transit access is integral to the university's long-range plans. Walk south into PSU's Urban Plaza where transit is integrated into an academic, recreation and retail hub of the campus. Streetcar bisects the plaza, while the perimeter of the block includes stops for numerous bus lines and the MAX Yellow and Green lines.

Continue walking south to Jackson Street to the future site of the College Station, a planned 900-bed student housing facility for PSU. A joint development between the university and TriMet, the complex will include an open plaza facing south from a u-shaped building designed around a two-story Victorian-era house on the block. MAX stations will be integrated into the block and

constructed along with the building, slated to be completed in 2012.

On the south side of Jackson Street is a plaza and the South Terminus of the Portland Mall light rail alignment where operators break. Approximately 30,000 cubic yards of concrete, existing aggregates and base material were reused from the Mall project. A portion of granite curbs, gutters and fountains became base material, walking paths and driving surfaces at the South Terminus, where many of the removed curbs and gutters were incorporated into the landscape design.

The terminus also includes green features in the design of the system buildings' exterior. Funded by a \$1.2 million grant from the American Recovery and Reinvestment Act, the exterior includes a large steel structure that will support future wind turbines and solar panels planned as part of a renewable energy project. The future wind and solar energy generators are proposed as part of an energy pilot program with PSU, providing educational opportunity for students while powering electrical systems in the light rail facilities at the site. The steel wrap conceals signals, communication equipment and the substation buildings at the south terminus. TriMet is seeking funding for the future wind and solar components.

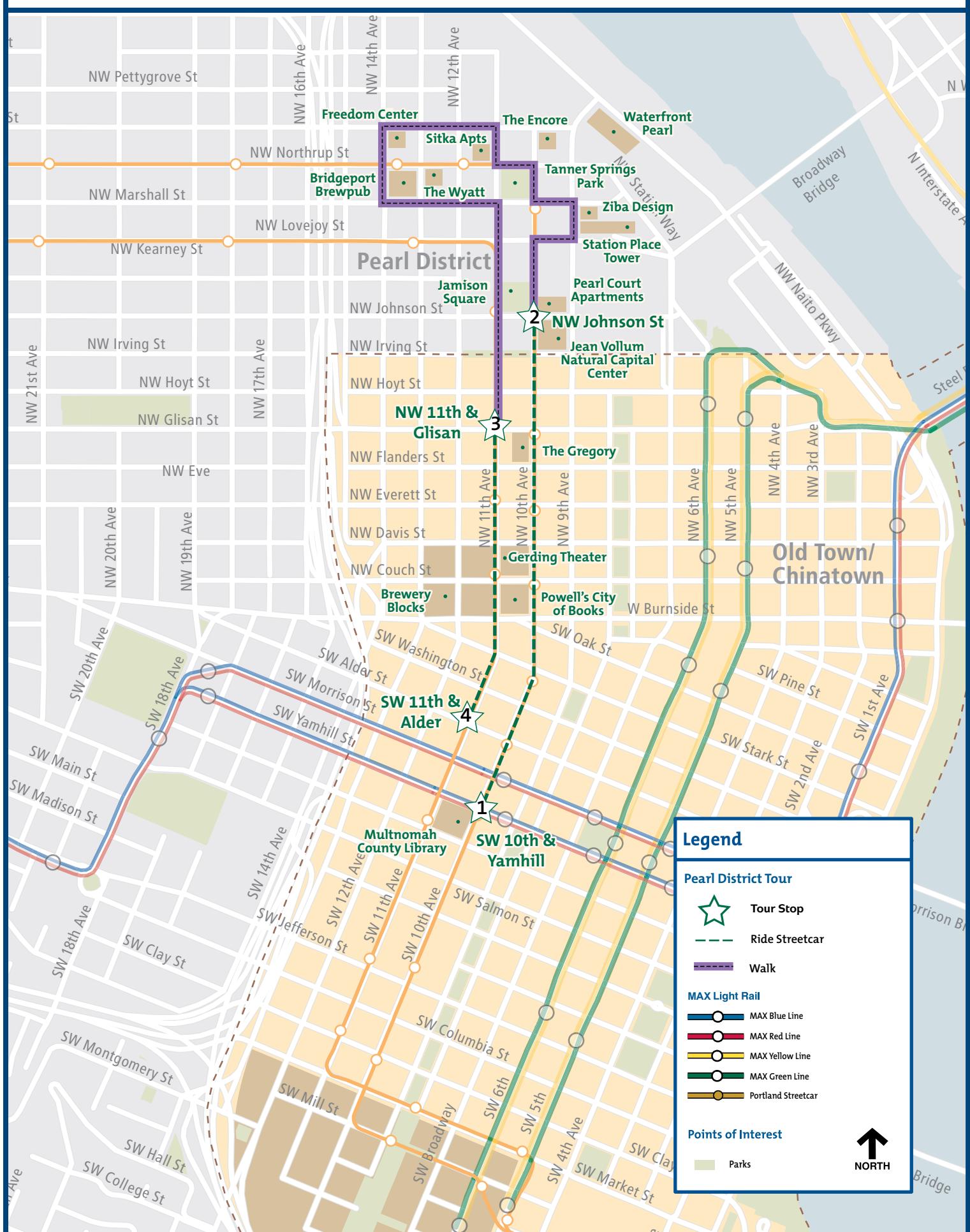
Walk north on SW 6th Avenue to Harrison to The Bike Hub, where students can fix their bikes and get low-cost repairs. Cycling is an essential travel mode for students and staff, and as such, the university is expanding its low-cost secure bike parking, funded in part through the Portland Mall's Local Improvement District.

Walk north on 6th Avenue to see more of the Mall art collection. On the west side of the street between Hall and Harrison is Fernanda D'Agositino's *Urban Hydrology*, carved granite sculptures based on diatoms, microscopic organisms studied to determine the health of a water system.

Board the MAX Yellow or Green Lines at the station adjacent to the PSU Urban Plaza or continue walking north. The entrance to Hotel Modera between Clay and Columbia includes a series of five abstract sculptures, titled *Continuation*, developed by Michihiro Kosuge using granite removed from the project as a result of construction.

The tour ends where it began, at Pioneer Square between SW Yamhill and Morrison streets on SW 6th Avenue.

Pearl District TOD Tour



Pearl District TOD Tour

New urban neighborhoods connected by Portland Streetcar have transformed Portland's Central City. A tour of the Pearl District by streetcar demonstrates excellence in urban design and execution. Plan approximately 45 minutes for this tour.

1. Start your tour at the streetcar stop located at SW 10th and Yamhill, across from the Multnomah County Central Library. It says something about the city's character that Portland chose to restore its Central Library, built in 1912, rather than build a flashy new public building. An extensive library renovation was completed in 1997. For the eight years from 2002 to 2009, the county library system has ranked first in circulation for U.S. library systems serving fewer than one million residents—in 2009, an average of 31 items per person were checked out for every county resident.

Real-time arrival information for the streetcar is displayed inside the shelter on the streetcar platform. Headways are generally every 15 minutes. There is one fare system for MAX, buses and streetcar. You can buy an all-day ticket at the ticket vending machine at the MAX station at SW 10th and Yamhill or you can buy a ticket good for two hours from the vending machine inside the streetcar.

Board the streetcar to NW 21st Avenue. The ride to the Pearl District will take about five minutes. After heading north for several blocks, the streetcar will cross Burnside Street. Burnside used to mark the edge of downtown Portland and demarks where addresses change from north to south. Until the 1990s, the blocks north of Burnside consisted of an industrial area crisscrossed by freight rail tracks and dominated by truck loading docks and gravel streets. From this fabric, the Pearl District emerged first as a funky art district and later as a sleek urban neighborhood. This transformation could be witnessed from the windows of Powell's City of Books, which opened at the corner of Burnside and 10th Avenue in 1971. Michael Powell, an early advocate for the streetcar, was among private sector supporters of a local improvement district to fund the transit project. Come back to Powell's when you have plenty of time. People are known to wander for hours through three floors of books covering an entire city block. As the streetcar crosses NW Flanders,

The Gregory will be on the left. This art-deco style 134-unit condominium tower completed in 2001 was one of the first newly constructed towers in the Pearl District. Developer John Carroll was another private sector advocate for the streetcar who recognized the opportunity to use transit to distinguish the neighborhood as an urban place.

2. Get off the streetcar at NW Johnson Street. To the east is the Jean Vollum Natural Capital Center, an adaptive reuse of a warehouse constructed in 1895. The freestanding façade along NW 10th is a response to the zoning requirements for buildings to address transit streets. The façade screens a parking lot with stormwater treatment in bioswales. The outdoor stairway towers are part of the seismic retrofit of this unreinforced masonry building. The building is the headquarters for nonprofit EcoTrust; Patagonia is a ground-floor tenant.

Jamison Square is across the street on the next block north. The boardwalk treatment that runs along the east side of the square is intended to connect with the Willamette Greenway some day. On sunny days, the water feature at the park attracts families from all over the region. Seating for restaurants activates the north side of the square. The area occupied by Jamison Square was part of the 34-acre Hoyt Street Yards. Developer Homer Williams purchased the property and initiated discussions with the City of Portland about how to bring urban services to the property. The development agreement that was eventually struck required Williams to convey 1.5 acres of park and dedicate approximately six acres for public streets.

The Pearl Court Apartments are located across NW 10th on the east side of Jamison Square. The property is owned by the Housing Authority of Portland and it provides 199 units of affordable rental housing. Its first residents were among the Pearl pioneers when the building opened in 1997. Several other affordable housing units dot the upscale Pearl as the result of City policies. A snapshot of market rate condominiums for sale in August 2010 ranged from \$1.85 million for a 2,355-square-foot penthouse in The Elizabeth to \$229,000 for a 618 square foot unit in the Streetcar Lofts.

Pearl District 2.0. Walk north on 10th and cross Lovejoy Street to see the Pearl District's second wave of development. For years Lovejoy crossed the district on an elevated structure to accommodate rail movements within the Hoyt Street Yards. In 2001, the \$10 million Lovejoy Viaduct project created a shorter Lovejoy ramp, bringing the street to grade and opening up the area north of Lovejoy for development. That same year the city's first modern streetcar opened with service to the Pearl District. Less than a decade later, the area north of Lovejoy is transformed with millions of dollars in new development. A new streetcar extension that will cross the Broadway Bridge and run north-south on the east side of the Willamette River will connect to the current system at Lovejoy and 10th Avenue. Construction started in August 2009 and is slated to be substantially complete at the end of 2011.

Some of the significant developments in this newer area of the Pearl include Hoyt Street Properties' Metropolitan (Lovejoy, between 10th and 11th), now the tallest building in the Pearl District. The 225-foot tall building includes 121 large, luxury units, in a 19-story tower paired with a four-story, 20,000-square-foot live/work building. Walk one block east to see Station Place Tower on the northeast corner of Lovejoy and 9th. The building serves very low income seniors. Station Place Tower includes the largest rainwater harvesting and reuse system for a residential building in the City of Portland. The building received the City of Portland's BEST Award for the Stormwater Management System in 2005. Just north of Station Place on 9th Avenue is the home of Ziba Design, an international design and innovation consultancy based in the Portland. Designed by Holst Architecture, the three-story, 76,000-square-foot building is recognized for its elegance, sustainability and minimalism. High-end condos, creative class employment and low-income housing within a few blocks exemplify the diversity that makes the Pearl a vital neighborhood.

Walk west on Marshall to the award-winning Tanner Springs Park. Thematically connected to Jamison Square by a wooden boardwalk made of ipê, Tanner Springs Park, quiet and naturalistic, was designed by Atelier Dreiseitl and GreenWorks PC. The park is planted with tall native grasses, and includes Oregon oak, red alder and bigleaf maple trees, salvaged in the region and planted as mature trees. The east wall of the park includes an art installation, primarily composed of rail tracks

recovered from the area that are placed vertically. Portland Terminal Railroad donated the rails.

Northeast of the park you will see a number of recent condominium developments opened as the real estate market declined and recession took hold. The Encore, at NW 10th and Overton, is memorable for its sleek curved shaped design created by Boora Inc. The development frames the north edge of the Pearl and includes 177 units. Just east along the Willamette River is the Waterfront Pearl, two towers of luxury condos. In between is a third Pearl District park, which is to be developed as "The Fields" into a larger, less structured open space for the neighborhood. The park construction is planned for completion in 2011.

Walk north to Northrup Street and east to NW 11th avenue. In 2008, The Sitka Apartments, a green apartment building targeted to meet the city's need for workforce housing, was completed in 2008. The building has 210 units, of which 198 are affordable to households earning below 60 percent of median income. In addition to studio, one- and two-bedroom residential units, the property includes approximately 7,000 square feet of commercial space, 131 underground parking spaces, and secure indoor parking for 100 bicycles.

Just northwest at Overton and NW 14th Avenue is Freedom Center, featuring 150 units of 300-to 400-square-foot affordable apartments for students and young professionals. Expected to be priced under \$800, these units are designed to appeal to young workers and students at the nearby Pacific Northwest College of Art. Next door is new commercial space that will include the U.S. Office of Immigration and Customs Enforcement as a tenant.

Walk two blocks south on NW 14th Avenue, where the BridgePort Brew Pub stands between NW Northrup and Marshall streets. BridgePort is Oregon's oldest microbrewery. Built in 1886 for the Portland Cordage Company, this historic building served as a rigging rope factory until 1935. It then languished as warehouse space until BridgePort took up residence and began its brewing operations in 1984. Walk east on NW Marshall Street. Along the cobblestone street at NW 13th Avenue and Marshall are The Wyatt apartments, formerly the site of the old Merchant Marine Warehouse, an industrial building with strong ties to the area's shipping and trade. Paying homage to this legacy, the building repurposed

many of the original structure's materials, including original bricks and old growth timber. The century-old trestle bridge that connects The Wyatt to the Bridgeport building was painstakingly restored, preserving its status on the National Register of Historic Places.

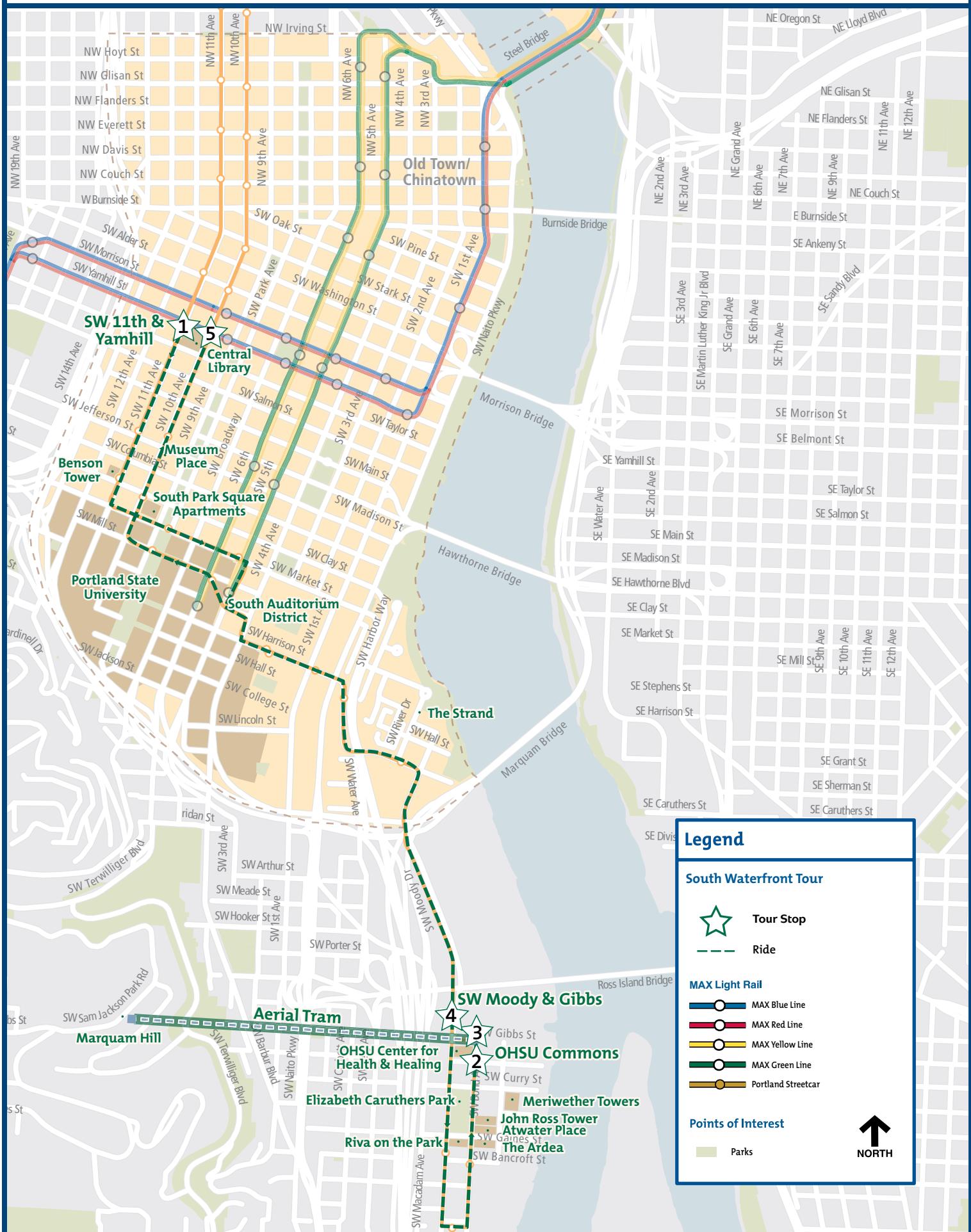
Also at NW 13th and Marshall is The Lovejoy, a mixed-use, two-block development with space to work, live and shop. The ground floor tenant, Safeway, opened in 2008 to much fanfare as the only grocery store in this burgeoning section of the Pearl.

Walk east to NW 11th Avenue and then south, following the streetcar alignment. At 11th and Irving, the Irving Street right of way is developed as a pedestrian-only connection. This treatment retains the connectivity of Portland's 200-feet by 200-feet street grid while adding greenery and diversity to the urban street infrastructure. The town homes between NW Irving and Hoyt were originally warehouse space for the Burlington Northern Railroad. The conversion of the building to housing in 1997 was an early Pearl project.

3. Board the streetcar to South Waterfront at the NW 11th & Glisan stop. A few blocks south is the Gerdin Theater between NW Couch and Davis Streets on the east side of NW 11th. Built in 1891 as the Portland Armory to house the Oregon National Guard, the building was converted in 2006 into the home of Portland Center Stage. The renovation earned a LEED platinum rating. The Theater is one of five blocks that comprised the Blitz-Weinhard Brewery, which started production in 1864. Strohs closed the brewery in 1999, selling the real estate to local developers, Gerdin Edlen Development (GED), for \$19.5 million. The now-redeveloped Brewery Blocks are bounded by NW 11th and NW 13th, NW Davis and Burnside. The redevelopment represents 1.7 million square feet of urban retail, Class A office space, housing and parking. GED credits the confidence of a significant local investor and a loan from the Portland Development Commission as elements that made an ambitious plan a reality. Their vision was rewarded by the purchase of three blocks (The Louisa Apartments, M Financial and the Whole Foods Building) by JP Morgan/Chase for \$291.6 million in July 2007.

4. Get off the streetcar at SW 11th and Alder, where the tour concludes, one block west of the start.

South Waterfront TOD Tour



South Waterfront TOD Tour

New urban neighborhoods connected by Portland Streetcar have transformed Portland's Central City during the last decade. A tour of the burgeoning South Waterfront District by streetcar and tram demonstrates brownfield redevelopment supported by innovative transportation solutions and attention to urban design. Plan approximately one hour for this tour.

1. Board the streetcar to South Waterfront at the stop at SW 11th & Yamhill. The Benson Tower is located six blocks south on the southeast corner of SW 11th and Clay. Completed in 2007, the building is the first "point tower" in Portland modeled on a building type common in Vancouver, B.C. The Benson Tower lot is only 10,000 square feet and the floor plate for the residential tower is only 6,000 square feet. The design offers each one of 143 residential units lots of window space. There are seven residential units per floor on the lower 14 levels of the tower and only five residential units per floor from the 15th level to the penthouse.

Just past The Benson Tower, the streetcar turns east on to SW Market Avenue and travels by Portland State University (PSU), where 40 percent of students, faculty and staff use transit to get to campus. Enrollment at PSU is expected to grow 30 percent in the coming decade, reaching 35,000 by 2017. In part to serve this growth, the MAX light rail system was extended to PSU with the opening of the Green Line in 2009. The streetcar turns south at SW 5th, where it shares the street with MAX.

The streetcar turns again, heading west on SW Harrison to travel through the South Auditorium District. The area reflects late 1960s urban renewal ideals. An ethnic neighborhood was replaced with towers built on newly consolidated superblocks. The scale and relative isolation of the project made it feel un-Portland. But as transit and redevelopment bustle around this area, its pedestrian paths and Lawrence Halprin-designed plazas are getting more use and appreciation. The streetcar continues past the south end of the River Place development, which was a 1980s-era urban renewal effort. The development's emphasis on housing with ground floor retail and pedestrian promenade along the river are the urban design building blocks that made a success of the Pearl District. However, the residential density necessary to make the place lively was missing.

That's changing with the addition of The Strand condominiums completed in 2007—more than two decades after the first phase of River Place. The Strand's silver-clad buildings are north of the streetcar tracks and visible from the River Place stop.

The streetcar then heads south again and enters the South Waterfront District. This is the last sizable innercity brownfield redevelopment opportunity in Portland. Development in the district is fueled by Oregon Health Sciences University (OHSU), which rejected a suburban location in favor of South Waterfront as a satellite campus connected to the main campus on Marquam Hill by the aerial tram.

After passing under a freeway interchange, the OHSU Schnitzer campus parking lot is to the east, between the streetcar alignment and the Willamette River. This is the site of a planned major expansion of OHSU. The development will be supported by a new MAX station to be built as part of the Portland-Milwaukie Light Rail Project currently slated to open in 2015. The project will construct a bridge for transit, cyclists and pedestrians across the Willamette River.

Continuing south, mixed-use development in the neighborhood continues to unfold, albeit more slowly in recent years. The neighborhood offers an array of condo and apartment options for people interested in living in walkable neighborhoods. The streetcar makes a loop through the district so you can view the area from the streetcar and then get off for a ride on the aerial tram. Alternately, you may get off at the SW Gibbs Streetcar stop and walk adjacent to the streetcar tracks for a closer look.

Passing under the aerial tram, the OHSU Center for Health and Healing is to the east. Completed in 2006, it is the first medical facility in the world to be built to LEED Platinum standard. The 16-story, 412,000-square-foot building has eight levels devoted to physician practices, surgery and imaging, and three floors that house a health and wellness center. Four levels are dedicated to education and research activities, including space for a biomedical engineering program. The ground floor houses retail space, including a pharmacy, optical shop and a café. An on-site wastewater treatment plant treats 100 percent of the

wastewater on site, with rainwater and wastewater harvested for toilets and landscaping. Also, OHSU's Center for Health and Healing is the first large building in the U.S. to replace air conditioning with vastly more efficient chilled beams. Similar to an automotive radiator, the beams are placed horizontally just below the ceiling—chilled water passes through the beams and natural air currents carry cool air down to the reception areas.

Continuing south, Elizabeth Caruthers Park was completed in 2009 to provide an open space amenity for the neighborhood. The two-acre park includes an active urban garden area with a community gathering space, environmental play area and garden seating, as well as a naturalized landscape area with stormwater treatment, and a "Song Cycle" art installation by public artist Doug Hollis. The park is named for an early pioneer who was one of the first settlers in the southern part of the city in the 1850s.

South of the park is The Mirabella, a 30-story luxury retirement center. The project caters to aging households seeking a menu of services available on site, but in an active urban environment. At SW Gaines is Riva on the Park, a LEED Gold Certified 22-floor luxury apartment building topped by a 25,000-square-foot eco-roof. Developed by Trammell Crow, the building has 297 apartments with four levels of structured parking. Green living features include energy efficient units and low-flow toilets. The block concludes with The Matisse, a five-story apartment complex.

As the streetcar turns northward, an elegant glass tower, Atwater Place, is visible to the northeast. The 23-story condominium building, designed by Portland architect Thomas Hacker, features views of the river, mountains and city. Atwater Place achieved LEED Gold certification and features a number of sustainable practices such as eco-roofs, efficient irrigation of bioswales incorporated into the natural landscape, high efficiency glass window systems and the use of low emission materials for better indoor air quality.

At Bond and SW Gaines, The Ardea is a 30-story oval-shaped building with 323 apartment homes and 33 townhomes. Developed by Gerding Edlen, this building also earned LEED Gold certification.

Directly north is the The John Ross Tower, Portland's seventh-tallest building. It is also the largest residential building built in Portland since the KOIN Center in 1984. Designed by TVA

Architects, the building has 31 elliptical-shaped floors and 303 condominium units. The building was completed as the real estate market was plummeting and the developers, Gerding Edlen and Williams & Dame, had 80 unsold units in 2010. Most of the remaining condos were sold at auction, some at a 70 percent discount from their original asking price.

The final three buildings to the east comprise the Meriwether Towers, the first mixed-use buildings completed in South Waterfront. Also LEED Gold certified, the Meriwether offers luxury residential condos.

2. Get off the streetcar at the OHSU Commons stop. The aerial tram to the OHSU Marquam Hill campus rises above the stop. To the southeast on the north side of the tram stop is Zidell Marine Works, which continues to build barges even as urban development closes in.

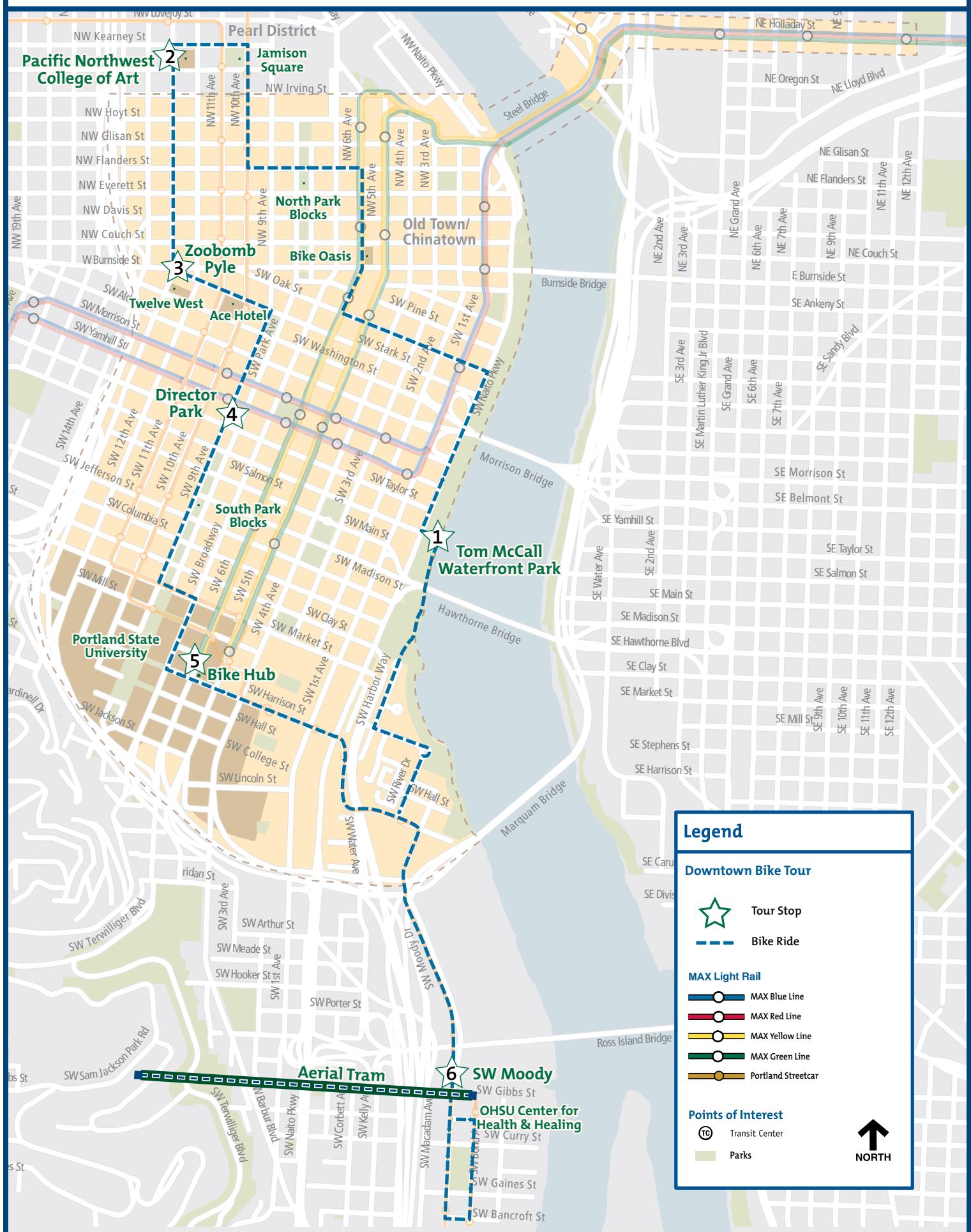
3. Board the aerial tram. Tickets can be purchased for \$4 from a ticket vending machine just outside the tram boarding area. A tram car generally arrives every five minutes and the trip takes about three minutes. The tram ride offers views of South Waterfront, the Willamette River, east Portland and, on a clear day, Mt. Hood. The tram operators can answer most questions about the tram. The intensity of development on OHSU's unique hilltop site is evident. Kohler Pavilion, accessed through the double doors at the tram stop, provides another opportunity to enjoy the views.

4. Return to South Waterfront and board the streetcar to NW 23rd. The ride back to the stop at SW 10th and Yamhill will take approximately 15 minutes. Traveling through the PSU campus again, a streetcar stop is integrated into the plaza outside the PSU Urban Center.

The streetcar turns north onto SW 10th at Mill Street. The stop at 10th and Clay is adjacent to the South Park Square Apartments, built in 1988 with financial incentives from the Portland Development Commission to foster more housing downtown. This is the least flattering side of the building; the east side facing the offers ground floor retail and a staircase with a water feature. Continuing south, The Museum Place project includes several new buildings between SW Columbia and SW Madison, including a Safeway with housing above the store.

5. This tour ends at the Central Library stop at SW 10th and Yamhill.

Downtown Portland Bike Tour



Downtown Portland Bike Tour

This bike tour highlights Portland's bike infrastructure downtown. This is an urban ride, mostly in mixed traffic. The bike tour begins at Salmon Springs at Tom McCall Waterfront Park, where there are bike rentals from Kerr Bikes (kerrbikes.org). Other downtown rental shops include: Waterfront Bikes (waterfrontbikes.com), Portland Bike Tours, (portlandbicycletours.com) and Pedal Bike Tours (pedalbiketours.com).

1. The tour starts at Salmon Springs in Tom McCall Waterfront Park (SW Naito Parkway at Salmon Street). In 1974 the park replaced Harbor Drive, a segment of US 99W dating from the 1940s, making Portland the first major city in the United States to permanently remove an existing freeway.

From Salmon Springs, ride north on Naito Parkway seven blocks and turn left to ride west on the Oak Street buffered bike lane. Continue riding west to SW 6th Avenue, the northbound artery of the Portland Mall. Two MAX lines, more than 25 bus lines, auto traffic, cyclists and pedestrians run north and south on the Portland Mall. First built in 1977, the Portland Mall transformed 5th and 6th avenues into transit priority streets served by most of the TriMet system's bus lines. After a two-year renovation that added light rail tracks, the Mall reopened in 2009, introducing bicycle traffic into the left, multi-modal lane—a first in the Mall's history.

Ride north on SW 6th Avenue. A bike oasis constructed as part of the Portland Mall project is located on the east side of the street between Burnside and NE Couch streets. The bike oasis provides high capacity medium-term bike parking that is partially sheltered from the elements. This oasis features a glass roof, stainless steel hardware and a pylon that is lit in the evening, elements that tie in with the overall contemporary design of the Portland Mall.

Continue north on NW 6th Avenue and turn left to ride west on Flanders Street past the North Park Blocks, which were dedicated to the city by Captain John Couch in 1869. Take a right on NW 10th Avenue where the northbound streetcar runs. Continue north to the heart of the Pearl District, Jamison Square, located between NW Kearney and Johnson streets.

The Pearl District was developed on underutilized industrial land and former rail yards. It is a transit-oriented development success story, catalyzed by the Portland Streetcar and public-private partnerships among developers and agencies such as the Portland Development Commission.

Turn left on Kearney Street, which is closed to autos. These occasional breaks in the street grid add character to the neighborhood without compromising pedestrian and bike connectivity. The orientation of residential units toward the non-auto street helps provide a feeling of safety. Continue west and turn left to head south on NW 13th Avenue.

2. Stop at the Pacific Northwest College of Art is located on 13th between Kearney and Johnson streets. College administrators were advocates for a bike corral with space for 57 bikes, installed and paid for by the Portland Bureau of Transportation. The corral replaced angled automobile parking spaces. More information about the bike corral program can be found at tinyurl.com/pdxbikecorrals.

Continue south on NW 13th Avenue, where loading docks have been transformed into storefronts and upscale restaurants with elevated sidewalks. The goal of this street design is to reflect the historic industrial character of the district while providing for all modes, including cars at slow speeds.

3. Cross Burnside to see the Zoobomb Pyle on the southeast corner of 13th and Burnside. Zoobombing, a Portland bike culture phenomenon, is a weekly Sunday night ride downhill from the Oregon Zoo on mini-bikes, tall bikes, and other unusual forms of non-motorized transportation. The sculpture is a response to what was a haphazard pile of loaner bikes on SW 10th and Alder that caused consternation among adjacent business owners. The new "People's Bike Library of Portland" designed by artists Brian Borello and Vanessa Renwick, replaced the old pile in 2009. Funding for the project was provided by the Portland Bureau of Transportation working with the Regional Arts and Culture Council.

The 23-floor, "Twelve West" building is visible a block east, at SW 12th and Washington. Completed in 2009, this mixed-use building includes ground floor retail, four floors of office,

17 floors of apartments, solar panels, and four experimental wind turbines on the roof which are helping to determine the efficacy and feasibility of incorporating wind energy sources into urban settings.

Ride eastbound on the SW Stark Street buffered bike lane. The Ace Hotel, which provides loaner bikes to guests free of charge, is located on SW Stark between 10th and 11th. A bike corral, installed by the Portland Bureau of Transportation at the request of the hotel, replaced on-street auto parking spaces. Continue east and then take a right to ride south on SW 9th Avenue.

4. Stop at Director Park, with its distinctive glass canopy at SW 9th and Yamhill. This site is one of six “missing park blocks.” These narrow blocks are in line with the North and South Park Blocks but not publicly owned. The site was a surface parking lot until it was purchased by Tom Moyer, who developed the Fox Tower, the high rise office building to the east. Moyer donated the surface of the block for the park and built 700 parking spaces underground. The park and adjacent street improvements were completed in 2009.

Continue south on SW 9th Avenue, past the South Park Blocks, which start at Salmon Street to SW Market Street, which marks the start of the campus of Portland State University (PSU). PSU has one of the largest populations of bicyclists in the downtown core and is a key destination for many cyclists.

Turn left to head east on Market, ride one block and take a right onto the SW Broadway cycletrack, a demonstration project. To provide for the cycletrack, the city removed one of the three motor vehicle lanes. The new road configuration includes a 7-foot bikeway, a 3-foot “shy zone” (for people entering and exiting cars), an 8-foot parking lane, and two, 12-foot wide motor vehicle lanes. The cycletrack is intended to test whether cyclists feel safer and more comfortable when buffered from moving traffic by parked cars.

Follow Broadway south three blocks to SW Harrison Street. Take a left to ride east on Harrison. Cross the light rail tracks on 6th Avenue.

5. Check out the PSU Bike Hub and Harrison Street Bike Garage on the next block. The PSU Bike Hub is a “do-it-yourself” environment that provides the necessary tools, resources, and instruction to enable students to maintain their own bicycles. It includes a small retail area that

sells bike parts to repair your bike and essential accessories to bike commuting both safe and comfortable.

Exit the Bike Hub to the left and head east on Harrison. The bike garage is across the street (green walls with silver panels). TriMet partnered with PSU to fund construction of 125 secure public bike parking spaces in an existing PSU garage. Students and members of the public pay \$15 per quarter to access the bike garage using a PSU student ID card. More information: transportation.pdx.edu/bicycles

Continue downhill (east) on Harrison, crossing Naito Parkway. SW Harrison curves south and becomes SW Moody Avenue. Follow the streetcar tracks along Moody. After going underneath the freeway interchange, the Oregon Health & Science University (OHSU) Schnitzer campus parking lot will be on the left. This is the site of a planned major expansion of OHSU. The development will be supported by a new MAX station to be built as part of the Portland-Milwaukie Light Rail Project currently slated to open in 2015. The project will construct a transit and bicycle/pedestrian bridge across the Willamette River.

6. Stop at Moody Avenue to the lower terminal of the Portland Aerial Tram, next to the OHSU Center for Health and Healing. The aerial tram travels 3,300 linear feet to connect South Waterfront and the planned Schnitzer campus with the main OHSU campus on Marquam Hill. The tram is a great asset for bike commuters who want to avoid biking uphill to the main campus. A tram ride, offering views of Mt. Hood on a clear day, takes 10 minute round trip and costs \$4. Return to Moody Avenue and do a short loop around South Waterfront by riding south to SW Bancroft St. Make two lefts to head north on SW Bond Ave, passing by the many high-rise residential buildings that have replaced brownfields. Turn left on Whitaker Street to intersect with Moody Ave and complete the loop.

Turn right on Moody Ave and follow the signs to downtown Portland. Turn left at the roundabout, ride one block west on Montgomery Street, then turn right to ride north on Harbor Way. Enter the bicycle and pedestrian path in Waterfront Park via the sidewalk outside the RiverPlace Hotel and ride north back to Salmon Springs.

The tour concludes at Salmon Springs in Tom McCall Waterfront Park.

Eastside: The Russellville transit-oriented development, located at the E 102nd Ave MAX Station, includes 576 residential units.



Chapter Four

Eastside

The Portland region's Eastside is defined by the area east of the Willamette River to the mouth of the Columbia Gorge at Troutdale. In between are the Inner Southeast, Outer Southeast and East neighborhoods of Portland and the suburban communities of Gresham, Fairview, Wood Village and Troutdale.

Transportation history

Trolleys were a defining feature of development patterns on the eastside between 1888 and the 1930s. "Old urbanist" neighborhoods like Ladd's Addition and Laurelhurst featured unique and compact street systems, providing easy pedestrian access to trolley lines on perimeter commercial streets. Although the trolleys ceased operations in 1950, this walkable, mixed-use fabric remains, and has been deemed worth fighting to preserve.

In 1955 the Oregon State Highway Department proposed building a freeway that would have run parallel to the existing alignment of Powell Boulevard (US 26) and extended from the Willamette River east to the city of Sandy. Portland neighborhood activists coalesced in opposition to the proposal, the Mt. Hood Freeway, which would have destroyed at least 1,750 homes in Eastside streetcar neighborhoods. Southeast neighborhood organizations challenged the 1971 Environmental Impact Statement for the freeway and several candidates were voted into City Hall on an anti-freeway platform. The freeway was declared dead in 1974. The defeat is considered a milestone in Portland's approach to urban planning and citizen empowerment.

Portland light rail is born

Just as statewide land use planning evolved out of opposition to the urbanization of farm and forest resources, light rail resulted from Portland's refusal to sacrifice neighborhood fabric to freeway lanes. A number of studies looked at alternate freeway projects and transportation modes, such as bus rapid transit, but light rail was ultimately proposed as the response to east-west commuter demand. Local, state and Oregon's federal delegation pulled together to successfully lobby the U.S. Secretary of Transportation to transfer funds slated for the Mt. Hood Freeway to a proposed light rail project. Federal approval was granted in 1980, making Portland's transit initiative one of the first federally funded light rail projects in the country.



The opening of the first MAX line in 1986.

TriMet constructed its first Metropolitan Area Express (MAX) line between March 1982 and September 1986 at a total project cost of \$214 million. Federal funding provided \$178.3 million or 83 percent of project costs. State funding totaled \$24.8 million and local funds contributed \$10.9 million.

The 15-mile line connects downtown Portland with Gresham and serves neighborhoods in between with 26 stops. Part of the alignment runs in the right-of-way of Interstate 84 and part is located on existing streets, primarily East Burnside. The project paved all 34 blocks of the downtown Portland alignment with Belgian block paving stones salvaged by the city in street reconstruction projects. In Yamhill and Morrison streets downtown, street intersections and sidewalks, widened to 18 feet, were finished with brick pavers similar to those used in the city's transit mall (SW 5th and 6th avenues). Zimmer Gunsul Frasca Partnership, the project architect, won a 1984 Progressive Architecture national urban design and planning award for the light rail project.

MAX was a success from the start. Some 250,000 Portlanders turned out for free rides on the system's opening weekend in September 1986. During its first year, average weekday ridership hit almost 20,000, exceeding a projected level of 17,000. First year riders totaled 7.23 million—more than double the projected count, largely a result of exceptionally heavy weekend ridership. And on one record-breaking day, the June 6, 1987, annual Grand Floral Parade in Portland, light rail carried 70,000 passengers. By 1989, light rail ridership had climbed to a weekday average of close to 21,000 boardings. In July 2010, weekday ridership for the Blue Line, including both its Eastside and Westside segments, averaged 68,000 boardings.

Modernizing the first light rail line

Low-floor vehicles

With planning and funding of the Westside light rail extension under way in the early 1990s, TriMet needed to purchase more light rail vehicles to serve the expected increase in ridership. The first generation of light rail vehicles purchased by TriMet with the Eastside line had steps at each doorway and required lifts or ramps at platforms for people using mobility devices to board.

Since that time, “low-floor” vehicles had become available. By eliminating stairs, low-floor vehicles allow for easier and quicker boarding for everyone, but especially elderly and disabled riders.

Anytime TriMet adds new vehicles to its fleet, however, the vehicles must be able to serve any existing section of the system. Seeking to improve service with the latest vehicle design, in 1995-96 TriMet undertook a \$6.8 million project to retrofit all of the existing Eastside platforms to accommodate the new low-floor vehicles. This required increasing the height of almost every Eastside platform by two inches; at three stations, the project lowered the tracks instead of raising the platforms. After the vehicles arrived and were put into service, TriMet removed the lifts at Eastside platforms. The original Type I light rail vehicles remain in service but are always coupled with a low-floor car.

Best practice updates

In spring 2009, TriMet received \$53 million in federal stimulus funds from the American Recovery and Reinvestment Act (ARRA). Federal guidelines required that stimulus money be spent on capital projects and infrastructure that will make the transit system more robust and put Oregonians to work. Approximately \$6.9 million of the ARRA funds received by TriMet were allocated towards much-needed updates to the Eastside Blue Line. These improvements include making modifications to promote current best practices in safety and security, accommodating growing ridership and development opportunities, adding bike parking facilities and brushing on a little fresh paint.

When the Eastside Blue Line began service in 1986, transit systems had only begun the use of closed-circuit television (CCTV) camera technology to monitor rider safety and security. Today, with smaller, less expensive CCTV systems available, the technology has become a vital component of high-volume transit systems. The visible presence of the

cameras helps deter crime, while the recordings may be used as evidence for prosecuting crimes. TriMet has now added CCTV to most MAX stations. Every MAX train and two-thirds of TriMet buses carry CCTV.

TriMet has also upgraded more than 1,325 lamps and globes at all MAX platforms from Gateway to Cleveland Ave. Older, yellowed globes were replaced with clear globes, which allow light from the new, brighter bulbs to illuminate more of the platform area. These upgrades improve nighttime visibility and provide transition zone lighting for riders, train operators and CCTV imaging.

To enhance security at the Gresham Central Transit Center, TriMet utilized ARRA funding to implement access control elements including delineation, with ground treatments and railings, of a zone where fares are required on each platform. The MAX system operates on an honor system for fare payment with random fare enforcement by TriMet personnel. The changes at Gresham Central provide TriMet with an opportunity to study whether physical treatments can be used to reinforce fare enforcement efforts and improve station security.

Rockwood/E 188th Ave Station renovation

Ridership growth and redevelopment opportunities in Gresham have triggered the renovation of the Rockwood/E 188th Ave MAX Station. TriMet and the City of Gresham worked together to redesign the station to reflect the city's aspirations for renewal of the area.

The City of Gresham focused on the Rockwood/E 188th Ave Station—one of seven stations in the city—because it is adjacent to a large former Fred Meyer site now owned by the Gresham Redevelopment Commission and slated for redevelopment. The refurbished MAX station will be an important step in the area's rejuvenation in preparation for private development when the economy improves. Design elements include new shelters, ticket vending machines, furnishings and public art. Rather than the original split platform design, both MAX platforms will be located on the west side of E 188th Avenue to enhance the “sense of place” at the station and improve pedestrian safety. Public art integrated in the station design will create a signature light rail station. The project will improve on public safety and security, with an emphasis on pedestrian safety.

The Rockwood station project is funded by a \$3 million grant from the Oregon Department of Transportation's Connect Oregon II program and a \$1.95 million commitment from the Gresham Redevelopment Commission. Construction began in May 2010, with the refurbished station scheduled to open in early 2011.

Civic Drive Station Construction

Work also began in May 2010 to complete a partially constructed station at Civic Drive in Gresham. In the works since 1997, TriMet and Metro committed to building the future station once enough development and density occurred in the Gresham Civic neighborhood to support it. The full 130-acre Civic neighborhood was formerly used by a mill—the light rail station will occupy a portion of the site, as will a future public plaza adjacent to the station.

The station, located on Civic Drive between Burnside and Division, will serve several developments: the Center for Advanced Learning, a magnet high school program; The Crossings, a newer mixed-use project just south of the light rail alignment; nearby retail and residential development; and future development on vacant parcels adjacent to the station. Project elements will include pedestrian crossing enhancements, shelters, ticket vending machines, furnishings and public art.

Metro, which owns land on both sides of the station, led the concept design for the project. The station will cost \$3 million, with funding provided from Metro and the Federal Transit Administration (FTA). When the Civic Drive MAX Station opens in fall 2010, it will be the 85th station along the 52-mile MAX system.

Station area planning

Portland planners of the 1970s understood that building freeways destroys neighborhoods, but they did not necessarily recognize light rail as a force to achieve positive neighborhood change. In Gresham, light rail provoked fear that transit would import criminals into the community. The city insisted the alignment remain at the edge of its downtown. In addition, the state's recession in the early 1980s caused Oregon to lose population. Only in the late 1980s did jurisdictions begin to look at light rail as a catalyst for change.

Hollywood

Portland's Hollywood area, located in close-in Northeast Portland, was developed in the early part of the 20th century around the streetcar that ran down NE 42nd Avenue and the neighborhood's main street, Sandy Boulevard. Over the years, increasing use of the automobile led to redevelopment along Sandy Boulevard to accommodate the car. During this time Sandy Boulevard became one of Portland's first and most spectacular commercial strips with large billboards and buildings that took the forms of symbols of their functions (a bottling plant with a tower shaped like a bottle, for instance) and the merchandise they sold. Some of these buildings remain, as do streetcar-era historic buildings and newer auto-oriented development.

In the late 1990s, the City of Portland moved away from large area plans in favor of more targeted plans focused on where residents and businesses desired change. The Hollywood Plan, adopted in 2000, is a good example of this approach. Charettes and other participatory opportunities engaged citizens in the process of imagining improvements to the area. The plan also demonstrates local implementation of a Metro 2040 designation of Hollywood as a town center.

The Plan's vision is to strengthen Hollywood District's role as a town center by recognizing and enhancing the district's local and regional commercial focus while accommodating more residents. To achieve this, the concept plan calls for a compact core of retail, commercial and mixed uses along and north of Sandy Boulevard. It also focuses commercial and residential activity to create a pedestrian-friendly area around the Hollywood Transit Center. It creates an enhanced connection between the transit center and the commercial core to provide easy access to people living in the vicinity and those visiting the area by transit, bicycle, foot and automobile. A proposed public gathering space near the transit center would become the focus of community activities.

Some of the tools employed by the plan include:

- Housing is a required component of most new developments or expansions of existing buildings.

- Buildings in the urban commercial zone are eligible for bonus floor area and building height by providing a minimum level of housing, open space, underground parking or day care facilities in new developments.
- New auto-oriented uses such as gas stations and oil change facilities are prohibited in this pedestrian district.
- Design review is required for all new development to ensure high quality structures that enhance the character of the area.

Gateway



The Gateway District is identified as a regional center in the Portland region's 2040 Framework Plan. Located at the confluence of two interstate freeways and three light rail lines, this area, which developed mostly after 1950, has struggled to redevelop as a more transit-oriented, pedestrian-friendly district. Challenges include large surface parking fields, an incomplete street network and poor pedestrian facilities.

After extensive community involvement and the creation of a concept plan for the Gateway District, the Portland Development Commission created the Gateway Urban Renewal District in June 2001. This established Gateway as a tax increment district capable of financing up to \$164 million for public improvements over 20 years. The plan calls for developing new parks, housing and commercial space, and transforming E 102nd Avenue into a boulevard with improved bike and pedestrian amenities. The first phase of the boulevard renovation was completed in November 2008. Construction of the second phase is scheduled to begin in 2012.

Rockwood

Five light rail stations serve the Rockwood area of Gresham. Relatively low density, single-family homes and multifamily rental housing dominated land uses before light rail, and similar infill housing development continued after light rail opened. These units provide affordable, market rate housing, but poor management and maintenance were attributed with fostering crime. At one point, the city imposed a moratorium on new multifamily rental housing construction.

Gresham has undertaken several planning efforts in the area, including the 1998 Central Rockwood Plan. The principal goal of this plan is to be a bold yet practical guide to long-term area development. Innovative for its time, the plan required more urban development patterns. New construction is set to a two-story minimum with no maximum height limit, and a mix of uses. New buildings should embrace light rail and be oriented toward transit. The plan seeks human-scale development to reinforce walking and community engagement.

Depressed market conditions and a low level of private investment dampened the impact of planning efforts. In 2003, voters approved the formation of an urban renewal district for Rockwood to finance public investment in the area. Local rules govern whether voter approval is required for urban renewal. In Gresham it is; in Portland it is not. Notably, the authority of the Gresham Redevelopment Commission (GRDC) does not include use of eminent domain. However, the GRDC has acquired property including a large parcel adjacent to the Rockwood/E 188th MAX Station where a grocery store had closed. The GRDC has a number of projects in progress under the banner of "Rockwood in Motion," including a redesign of the MAX station, improvements to East Burnside and Stark streets and interim uses for the former grocery store site. Together, these projects will improve the appearance of Rockwood, make access to MAX safer and more pleasant, and jump-start investment in the neighborhood.

Downtown Gresham

Gresham's 1994 Downtown Plan was the culmination of a two-year planning process. The 20-year plan includes 19 guiding principles that encourage more intensive development downtown while maintaining the character of Main Street. The

333 acres in the Downtown Plan were rezoned to allow mixed-use and transit-oriented buildings, resulting in the division of downtown into six sub-districts, distinguished by emphasizing different primary uses and determining the intensity of development. While Gresham initially treated light rail as something from which the community should be buffered, the Downtown Plan calls for strengthening connections to MAX stations and intensifying uses in station areas.

Downtown planning moved toward a finer-grain vision with the adoption of The Downtown Plan/Downtown Design Standards project in 2009. Aspirational statements were developed that addressed future land use/development, access/mobility, housing, design and special attractors. Design Standards address street types, site design and building design with standards tailored to recognize unique characteristics of the built environment in each sub-district.

Gresham enacted a transit-oriented development tax exemption program to stimulate transit supportive development. To qualify, projects must meet a minimum density, include elements with public benefits such as parks or enhanced transit access, and demonstrate that the abatement is needed to achieve the project. The abatement is available for up to 10 years.

While subsequent light rail extensions were carefully planned with transit-oriented development (TOD) opportunities in mind, the Eastside MAX Blue line was constructed with little focus on TODs. As local governments have changed land use plans and made supporting public investments around the first MAX Blue Line stations, TODs have captured a growing market

of people who want proximity to transit. Most of the projects described below are a result of redevelopment of land previously used for some other purpose. The descriptions that follow are organized by station area, traveling east from the Willamette River.

Transit-Oriented Development

Liberty Centre



Located adjacent to the NE 7th Ave MAX Station in Portland's Lloyd District, Liberty Centre was completed in 1997. The building has 280,000 square feet of office space, 5,000 square feet of ground-floor retail, a 26,000-square-foot outdoor plaza and a 600-space parking structure. Ashforth Pacific Inc. and Liberty Northwest teamed to develop the office tower, which became the headquarters of Liberty Northwest Insurance Companies.

In creating the two-block development site, NE Pacific Street was vacated to allow a more cohesive connection between the building, the outdoor plaza and the parking garage. Pedestrian connections remain through the vacated street, and the public can access the outdoor plaza. The \$45 million project was designed by GBD Architects of Portland.

Stuart A. Hall, president and CEO of Liberty Northwest, stated, "Our goal is to relocate to a first-class project in a location that would be convenient for our customers and employees, with ready access to mass transit." The company determined that it would lose a significant number of employees if it relocated to a suburban location without light rail service. It concluded the higher cost of inner-city, high-rise offices would be balanced by workforce retention. Ashforth Pacific, which owns a number of other Lloyd District properties, has been an active supporter of the expansion of streetcar to the eastside.

The 17-story building has views of both Mt. Hood and downtown Portland. Amenities within the building include a 24-hour lobby attendant, on-site property management, visitor parking, an ATM, a shower and a locker room. The building is within walking distance of day care centers, restaurants, hotels, business services, the Lloyd Center Mall, the Oregon Convention Center and the Rose Garden Arena.

Location and Transit Access

NE 7th Ave MAX Station

Project statistics

Site area: 96,000 sq. ft.

Project program:

280,000 sq. ft. office

5,000 sq. ft. retail

26,000 sq. ft. outdoor plaza

600-space parking garage

Parking ratio: 2.1/1,000 sq. ft.

Total jobs: 1,200

Completion date: 1997

Buckman Heights/Buckman Terrace

Buckman Heights/Buckman Terrace is a 3.7-acre, mixed-use redevelopment of a former car dealership site. Prendergast and Associates, the developer, found a commercial user for the 41,000-square-foot existing dealership building and then developed 266 units of rental and owner-occupied housing and one additional commercial space on the remaining 2.5 acres of parking lots.

Through careful design of the buildings, the landscaping and the overall site, the developer created a small neighborhood where none existed before. The project received widespread recognition for innovative techniques for on-site treatment of stormwater and other environmental features.

The two apartment buildings (Buckman Terrace at 122 units and Buckman Heights at 144 units) set a new standard for transit-oriented development by combining convenient access to bus lines and light rail, a pedestrian-friendly design and extensive interior bike-storage facilities. The developer also provided curb extensions on NE 16th Avenue from Sandy Boulevard to Glisan Street and landscaping and hardscape improvements to Buckman Field, a 12-acre city park located directly behind Buckman Terrace.

For residents who sometimes need a car, the buildings have a partnership with Zipcar to provide two cars on site for use by tenants who become Zipcar members. Cars are available at a rate charged by the hour and the mile.

Location and transit access

Sandy Boulevard at NE 16th Ave
Lloyd Center MAX Station (10 blocks away)
Bus lines 12, 19, 20 and 70

Project statistics

Site area: 30,000 sq. ft.

Project program:

266 housing units
1,500 sq. ft. retail

Completion date: 1998 (Buckman Heights) and 1999 (Buckman Terrace)

Hollywood Library/Bookmark Apartments

When Multnomah County completed site assembly for a stand-alone library in the Hollywood District in the fall of 1998, advocates for incorporating housing into the project made appeals to County Commissioners to encourage a change in direction. Responding to these requests and further encouragement from city elected officials and staff, in early 1999 County Commissioners adopted a new policy supporting the concept of mixed-use development at branch libraries, and specifically directing that a feasibility study be completed for mixed-use at the Hollywood Library site. Developers were soon competing for the chance to participate in the project.

Sockeye Hollywood LLC, an affiliate of the Portland firm Shiels Obletz Johnsen, Inc., was selected through the competitive process to partner with the county. As part of the Hollywood Plan, county officials and the development team worked closely with city planners and citizens, creating zoning and development standards for the project that would maximize the opportunity for development while respecting the site's proximity to smaller commercial and residential structures. Requirements such as a setback for upper stories and a strong pedestrian orientation helped shape the project. The project also had to overcome concerns about parking.

Today, a 13,000-square-foot library occupies the ground floor of a four-story, mixed-use building. The brick building with concrete elements evoke a civic-grade quality appropriate to a public library. The library has also been animated with a variety of art elements. Renowned artist Peter

Mollica designed a series of colorful stained glass pieces that were installed into the large windows along N.E. Tillamook Street and in the entry vestibule. A wall along the east side of the library reading room honors the work of children's book writer Beverly Cleary, who was raised in this neighborhood. Colored stone is used to render an abstract representation of the Hollywood neighborhood with highlights of some of Ramona Quimby's familiar stomping grounds, including the Hollywood Theatre, Rose City Library, Ramona's house, Grant Park and the Laurelhurst School.

The ground floor also has a small retail space occupied by a locally-owned coffee shop and a lobby for the Bookmark Apartments. The building's upper three floors provide 47 residential units. Nineteen of the apartments are restricted to households at or below 60 percent of the area median income. The development includes 28 parking spaces shared by residents and library patrons (an additional nine spaces on site are reserved exclusively for a neighboring business).

A unique partnership with PGE and PacifiCorp guided the project's sustainable building program. The building is certified by PGE's Earth Advantage® program, and the library also received certification under PGE's Earth Smart® program.

Multnomah County funded and owns the library. Sockeye Hollywood LLC financed and owns the housing and retail space. The partnership has proven to be a win-win and demonstrates that public entities with space needs can play a critical role in mixed-use projects.

Location and transit access

4040 NE Tillamook Street
Hollywood/NE 42nd Avenue MAX Station
Bus lines 12 and 75

Project statistics

Site area: 30,000 sq. ft.

Project program:

47 housing units
13,000 sq. ft. library
815 sq. ft. café
28 shared parking spaces

Completion date: 2002

The Beverly

The Beverly provides another model for mixed-use development in the Hollywood neighborhood. Named after renowned children's author Beverly Cleary, the brick and wood-clad Beverly is anchored by a Whole Foods Market and Chase Bank on the ground floor, with two floors of

parking above. The top two floors are devoted to 53 condominiums (all one- or two-bedrooms), which enjoy views of Mount Hood to the east and downtown Portland looking west. The residential units are arranged around a rooftop courtyard.

On a site previously occupied by a bank and surface parking, the development exemplifies the intensification of land use envisioned by the Hollywood Plan by increasing locally available amenities. The building also demonstrates the viability of a neighborhood grocery store with structured parking. The above-ground structured parking facility is a more economical approach than subterranean garages typical of downtown.

Completed in early 2010 and slated for LEED Silver certification, the five-story building was developed by Portland-based Gerdin Edlen Development and designed by GBD Architects.

Location and transit access

NE 44th Avenue and Sandy Blvd.
Hollywood/NE 42nd Avenue MAX Station
Bus lines 12 and 75

Project statistics

Site area: 56,000 sq. ft.

Project program:

53 condominiums
46,000 sq. ft. residential
46,000 sq. ft. retail
12,000 sq. ft. outdoor plaza
261-space parking garage

Parking ratio: 4/1,000 sq. ft.

Completion date: 2010

Center Commons



Redeveloping a 4.8-acre former maintenance yard sandwiched between a freeway off-ramp and an established neighborhood retail district presented many challenges—mitigation of contaminated soil was needed, partnerships were formed and funding gaps were overcome. Since its completion, Center Commons has been recognized

as a successful and pioneering transit-oriented development.

Visible from the Northeast 60th Avenue MAX light rail station, Center Commons is a mixed-income, transit-oriented development consisting of four apartment buildings and 26 townhouses. The apartment buildings contain 172 units of affordable housing for seniors, 60 affordable family units and 56 market rate units. An on-site day care facility and a play area for children are also included. The three-story condominium townhouses, built primarily for first time homeowners, were made available for sale to both conventional and below-median-income buyers. Income qualifying households received a 10-year transit-oriented property tax abatement from the City of Portland because of the development's proximity to the MAX light rail system.

This was the first project in the U.S. to be funded with Federal Transit Administration funds where the property was bought and sold in escrow to achieve a land value write-down. The project won the American Institute of Architecture/Housing and Urban Development award for Mixed Use/Mixed Income Development in 2001.

Location and transit access

NE 60th Avenue and Glisan Street
NE 60th Avenue MAX Station

Project statistics

Site area: 4.8 acres

Project program:

26 condominium townhouses
288 apartments
1,200 sq. ft. retail
Daycare center

Completion date: 2000

The Oregon Clinic

TriMet's Gateway Transit Center is located in the Gateway District, midway along the MAX Blue and Red lines. The original 5.5-acre Transit Center site included an 830-space surface Park & Ride lot. The Gateway Regional Center Urban Renewal Plan identified the Park & Ride site as an opportunity for TOD to support commercial vitality in the Gateway District and capitalizing on the excellent transit and freeway access. TOD would also help achieve the objectives of the Opportunity Gateway Concept Plan and Redevelopment Strategy, which calls for pedestrian connections to the Transit Center from the surrounding area.

Development phases

TriMet and the Portland Development Commission (PDC) worked together for several years to initiate redevelopment on this site. TriMet had agreed to make one acre of the parking lot available for development when PDC was approached by a private developer looking to site a medical office building in Gateway. The Oregon Clinic facility required at least three acres. To keep these medical jobs in the city, PDC agreed to help finance a Park & Ride garage to make more land available for development. The project was approved by the Federal Transit Administration under its joint development guidelines.

The first phase of development includes a 101,600-square foot medical office building and an adjacent 650-space parking garage to replace the Park & Ride lot and to supplement surface parking for the medical office building. Phase 1 broke ground in July 2005 and was completed in October 2006. Phase 2 of the construction will add up to six floors to the medical office building and up to seven levels to the parking structure. When the second phase is complete, the project will generate an estimated 900 daily transit trips. Subsequent phases could include commercial space, a hotel and 200 residential units with a public plaza.

Location and transit access

Gateway/NE 99th Avenue MAX Station
Bus lines 19, 22, 23, 25, 27 and 33

Project statistics

Site area: 56,000 sq. ft.

Phase one:

101,600 sq. ft. medical office; 650-space parking garage

Phase two:

Addition of up to 10 floors to the initial medical office construction and addition of up to seven levels to the parking structure

Subsequent phases:

425,000 sq. ft. commercial space

426,000 sq. ft. hotel

200 residential units

LEED-certified public plaza

Completion date: 2006

Russellville

Russellville is a 576-unit residential neighborhood adjacent to light rail. It was developed on an 11-acre site that was once a public school.

The site was divided into five separate blocks by extending the public street grid, creating an open connection between new development and existing neighborhoods. Linear green space that

connects the new blocks with Burnside Street and the MAX station provides the focus of the pedestrian circulation system.

Phasing of the development began with Russellville Commons, a 283-unit, market-rate rental housing project. This phase includes "double townhouse" building designs that have either two- or three-bedroom townhouses placed above one-bedroom split-level units. Each unit has a private, street-level front door. These units attract people who do not want to live in buildings with shared corridors, stairs and elevators. Independently rented private garages are located under the first-floor units.

The building character changes substantially on the two blocks facing Burnside and the light rail that were developed in the next phases of the project. This portion of the project, called Russellville Commons, has higher densities than the first apartment phase in order to maximize the location adjacent to light rail. The second phase is a five-story building with 154 senior independent living units, a day care and a service component at street level and parking behind. Phase III includes a four-story building with 139 units of senior housing and approximately 20,000 square feet of ground floor commercial space that houses medical offices, a fitness center, salon, coffee shop, deli and a restaurant. The entire development is organized along a central greenway that physically connects the pedestrian environment with the E 102 Avenue MAX light rail station.

Location and transit access

SE 102nd & Burnside Avenue
SE 102nd Ave MAX Station
Bus lines 15 and 20

Project statistics

Site area: 11 acres

Project program:

576 housing units

30,000 sq. ft. commercial space

Residential density: 52 units/acre

Completion date: 1998 (phase 1), 2004 (phase 2) and 2009 (phase 3).

West Gresham Apartments

West Gresham Apartments is located on a surplus portion of property that TriMet acquired to locate a new substation for the light rail system, should the system's power demands increase. TriMet's land development staff determined that the substation would require only a portion of the site, and sought a developer for the remainder of

the property. TriMet policy directs staff to manage the agency's real estate to increase ridership and create partnerships in the community. It also gives special consideration for development serving low-income residents.

To achieve these objectives TriMet turned to Cascadia Behavioral Healthcare Company, which provides housing and other services to low-income people experiencing mental illness and/or addiction. TriMet was able to offer the property to Cascadia at a discount in order to achieve the goals of both agencies.

The rental units provide housing for low-income individuals who have psychiatric disabilities. Tenants live independently with some community-based assistance. While single individuals occupy most units, some units are available to couples. Prospective tenants are referred by their case manager, hospital discharge planners, family, friends, and through self-referral.

This property, located adjacent to the E 172nd MAX Station, is zoned "Station Center," which allows higher-density housing with a maximum of 60 units per acre. The City of Gresham revised its Station Center zoning to allow mixed-use development. TriMet asked Cascadia to incorporate a small retail space to provide an amenity for neighborhood pedestrians and MAX passengers into the project.

The project spent four years in pre-development due to a merger between Cascadia and two other community health organizations, which slowed project development for two years. Once the dust settled from the merger, capital fundraising resumed in fall 2003, and the project quickly garnered a significant Low-Income Affordable Housing Tax Credit award. The balance of the capital fundraising from other grant and loan sources required an additional year of effort. Construction began in November 2004, and the apartments opened in October 2005.

Multiple sources contributed to capital funding, including: Oregon Housing and Community Services, Oregon Office of Mental Health Services, the City of Portland through the Portland Development Commission, the Enterprise Social Investment Corporation, Bank of America, Network for Oregon Affordable Housing, Seattle Federal Home Loan Bank, the City of Gresham and Multnomah County. In addition, the Housing Authority of Portland committed to providing 26

Section 8 Project-Based Vouchers to subsidize the rental cost of the units.

Location and transit access

17257 East Burnside
E 172nd Ave MAX Station

Project statistics

Site area: 9,696 sq.ft.
Project program:
24 housing units
635 sq. ft. commercial
9 parking spaces
Residential density: 121 units/acre
Parking ratio: 0.37 spaces/unit
Completion date: 2005

The Crossings



The Crossings combines retail, residential and office activities to create a diverse, high-density, mixed-use building. Located immediately adjacent to the Gresham Civic Drive light rail station, the project decreases auto dependence and promotes urban living.

In 2001 and 2002, Metro's Transit-Oriented Development Implementation Program purchased three sites totaling 13 acres surrounding the Civic Drive MAX station area in the core of Gresham's Civic district. The Crossings was the first of several projects to be constructed on the parcel, which had been purchased to ensure that the land around the planned Civic Drive light rail station would be developed in a manner that would support that station and the light rail system, and enhance the surrounding district. The greater station area had already been developed as a fairly standard retail center, albeit with improvements such as a coherent pedestrian network. Metro's site control enabled the agency to require housing, which the market had not provided on its own.

Metro chose Peak Development LLC to develop the site and provided a land discount and other

financial assistance. Tax concessions from both the city and county also helped make it possible to undertake the expensive structure envisioned by Metro. TriMet contributed excess right-of-way along the adjacent MAX line to the project. The development includes a below-grade parking garage, surface parking, harvested rainwater landscape features, 20,000 square feet of ground-floor retail and 81 housing units. Constructed of post-tensioned concrete slab and traditional wood framing, the building is four and five stories in height. The design is innovative and engaging—the building encompasses an entire block yet appears to be a number of narrow, human-scale buildings that include traditional and modern architectural accents. The façade facing Civic Drive, built to the edge of the sidewalk, pushes forward and back in an alternating fashion, and provide pockets of activity for sidewalk cafés and interactive retail spaces to flourish.

Myhre Group Architects was responsible for the building's unique architectural design, master planning, interior design and planning entitlements.

Location and transit access

733 NW 13th Street, Gresham
Gresham City Hall and Civic Dr MAX stations

Project statistics

Site area: 2.06 acres

Project program:

81 housing units

20,000 sq. ft. commercial

211 parking spaces

Residential density: 39 units/acre

Completion date: 2006

Gresham Central Apartments

The Gresham Central Apartments is the result of TriMet's first venture in making land available for transit supportive development. Initiated in 1991 it may be among the first transit joint developments in the country.

This 90-unit housing development is located at the Gresham Central MAX Station. The buildings are built out to the street with front porches, like historic townhouses, with one frontage facing a pedestrian promenade to the transit station. Parking is located in the interior of the site so that garage-door openings and parking lots do not conflict with pedestrian flow. The design creates a pedestrian-friendly street that facilitates the residents' access to downtown by walking, bike or transit.

A major public objective of the project was to offer the region a built example of transit-supportive development in a suburban environment. The project differs from traditional suburban apartments in the Gresham area because of its density (35 units/acre as compared with 17 to 22 units/acre), building massing, parking ratios (1.5 spaces/unit as compared with 2 spaces/unit) and pedestrian-oriented design.

Any type of public/private partnership in which the public sector invests in a private development has potential to be politically sensitive—even if that private development has a myriad of public benefits. This project faced those challenges. Additionally, during the planning phase of the project, the city debated new policies to determine an appropriate mix of affordable and market-rate housing in its downtown. These discussions affected the product mix, design and economics of the project.

TriMet's ownership of a portion of the site along the light rail alignment provided a powerful joint development tool in achieving the goals for a new residential product in Gresham. At the same time, the project had to respond to the market in which it was being developed. Due to the cost of structured parking, market-rate projects above 35 units per acre in Gresham required either a significant increase in rents or public financial participation. The Gresham Central project was realized with the following public incentives:

- Sales of excess right of way by the transit agency through a development agreement for a transit-oriented development
- \$332,000 from a Department of Environmental Quality Congestion Mitigation and Air Quality grant
- Utility easement relocation and consolidation
- Downtown Gresham housing tax abatement
- Public/private joint use of the stormwater sewer system

Location and transit access

800 NE Roberts, Gresham
Gresham Central MAX Station

Project statistics

Site area: 2.6 acres

Project program:

90 housing units

135 parking spaces

Residential density: 35 units/acre

Parking ratio: 1.5 spaces/unit

Completion date: 1996

Central Point

Central Point was the first high-density, mixed-use, urban revitalization project in downtown Gresham. The contemporary design ignited interest in creating a new downtown redevelopment master plan for the City of Gresham.

Built with the help of Metro's TOD Implementation Program and tax concessions by both the city and county, the building opened in 2001. That same year Myhre Group Architects, the project architect, received a Governor's Livability Award for their design. The Oregon Department of Environmental Quality has also praised the building as an environmentally friendly development.

Located just four blocks from the light rail station, the four-story project features 3,000 square feet of retail space, 29 market-rate apartments and 18 "tuck-under" parking spaces. The pedestrian-friendly building caters specifically to mobile, transit-oriented people who have discovered that urban amenities and suburban living can be commuter-friendly. Shops, restaurants, banks, schools and parks are easily accessible by foot, and the building is just one block from the future Gresham Center for the Performing Arts.

Location and transit access

NE 3rd Street & NE Roberts Avenue, Gresham
Gresham Central Transit Center

Project statistics

Site area: 12,000 sq. ft.

Project program:

29 housing units

3,000 sq. ft. retail

18 parking spaces

Residential density: 82 units/acre

Completion date: 2001

The Béranger

Completed in fall 2007, The Béranger offered the first mid-rise, luxury condominiums in Gresham. Only one block away from Central Point, the building is within walking distance to most anything, including MAX and bus lines, the farmers market, downtown shops and restaurants, the new Gresham Arts Center Plaza and the future Center for the Performing Arts.

The building itself is made of dark-toned slate from the ground up, with large, wood-clad canopies hung overhead to create a dramatic effect on the exterior facade. The project utilized porous pavement, flow-through planters and an eco-roof to reduce the environmental impact to the City's stormwater system. The especially innovative "green roof" is viewable by residents from a rooftop community patio, acting as an educational tool for the residents and their guests.

Location and transit access

287 NE 3rd Street, Gresham
Gresham Central Transit Center

Project statistics

Site area: 23,520 sq. ft.

Project program:

24 housing units

7,100 sq. ft. commercial

30 parking spaces

Residential density: 48 units/acre

Completion Date: 2007

Resources

Transit

Eastside MAX Blue Line

trimet.org/pdfs/history/railfactsheet-banfield.pdf

Planning

Gateway

pdc.us/ura/gateway.asp

Hollywood Plan

tinyurl.com/pdxhollywoodsandyplan

City of Gresham

greshamoregon.gov

Transit-oriented development

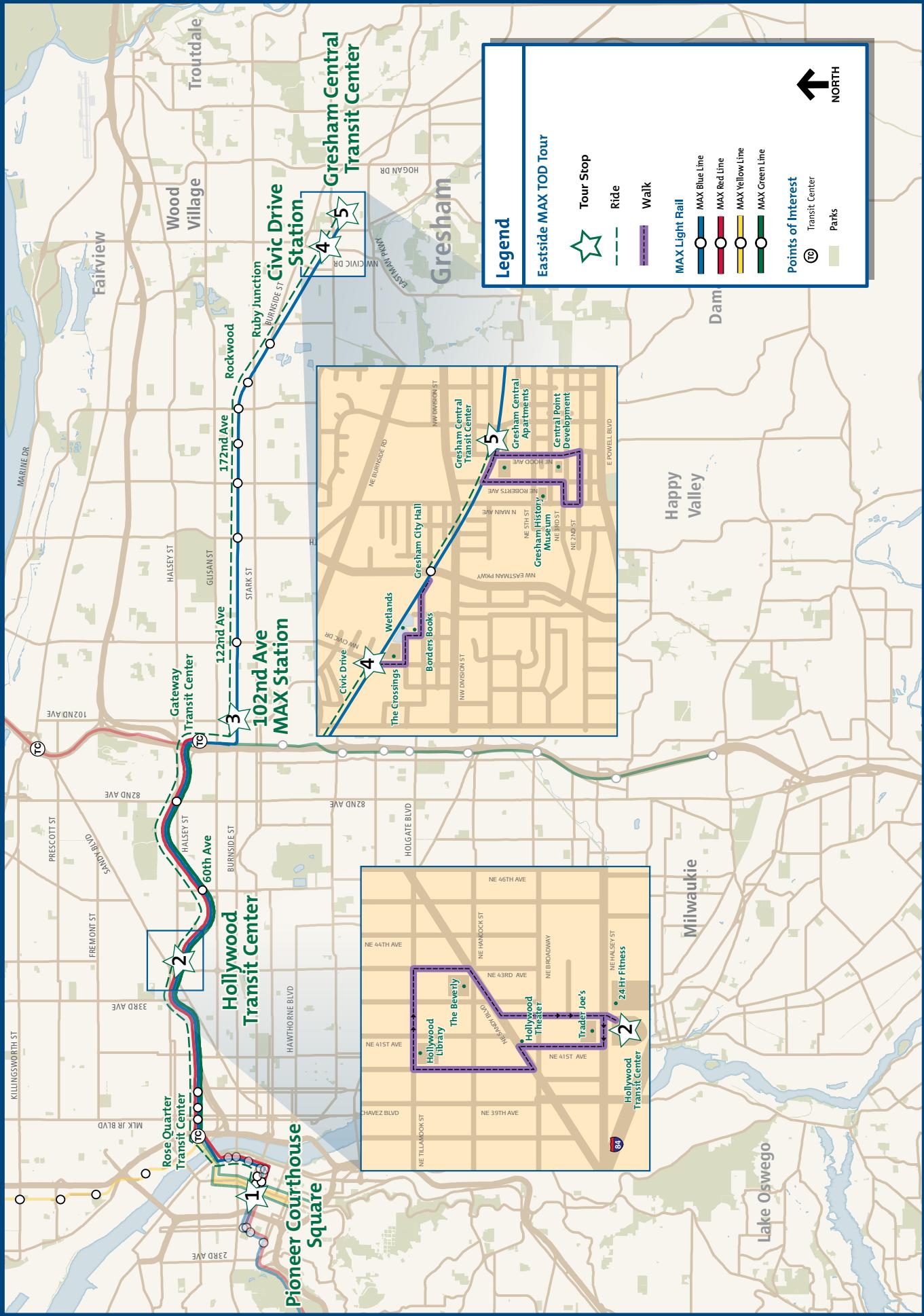
Hollywood Library/Bookmark Apartments

library.oregonmetro.gov/files/hollywoodlibrarycs.pdf

Metro-assisted TODs

tinyurl.com/metrofeaturedtod

Eastside MAX TOD Tour



Eastside MAX TOD Tour

The Eastside MAX Blue Line opened for service in September 1986. This tour will travel to Gresham, where notable transit-oriented development (TOD) projects have emerged, and there are several TOD landmarks along the way. The journey along the Portland region's first MAX line illustrates some important lessons learned. Plan four to five hours for the complete tour.

1. Start your tour at Pioneer Courthouse Square, bounded by SW 6th, SW Broadway and SW Morrison and SW Yamhill in downtown Portland.

This public square, known as Portland's living room, was completed in 1984 and anticipated the Eastside (a.k.a. Banfield) MAX Blue Line then under construction. It gets its name from the historic courthouse east of the Square. The Square was conceived as part of the 1972 Downtown Plan and replaced a full-block, two-level parking structure. Part of the city's park system, it is operated by a non-profit board and professional staff responsible for programming events. The entrance to a visitor information center and a TriMet ticket office is between two water features on the west side of the square. Transit tickets can also be purchased at the ticket vending machines at MAX stops.

This transit hub, surrounded on three sides by light rail, is featured as a leading image for Portland's evening news programs. The MAX Green Line, which opened in 2009, rejuvenated the Portland Mall on the Square's eastern edge. Originally built as a spine for downtown bus service with limited auto access, now the entire Portland Mall on 5th and 6th Avenues accommodates buses, trains and a single lane of automobile and bicycle traffic.

The vitality of downtown Portland is evidence from the Square is the product of 40 years of planning and design. A wealth of quality transit options and a comfortable pedestrian environment enhance the livability of downtown. Financial incentives for urban housing have contributed to the 24-hour vitality in the downtown area. The business community and Portland's citizens have played a direct role in reinvesting in streetscapes and public spaces, such as Pioneer Square. In fact, individuals and business sponsors purchased each of the Square's architectural elements, from the bricks to the columns.

Next, board the MAX Blue Line to Gresham or Red Line to Airport on the south side of the Square. The Eastside MAX line was opened in September 1986 as the product of opposition to a new freeway. The project cost totaled \$214 million, with 83 percent federal participation. The 15-mile foundation for Portland's light rail system has 26 station stops and is an integral part of TriMet's eastside grid-oriented transit system.

The 45-minute ride to Gresham will be broken up with stops along the way at the Hollywood/NE 42nd Ave (40 minutes), E 102nd Ave (20 minutes), and Civic (30 minutes and Gresham Central (40 minutes) stations.

Traveling east, the MAX alignment on First Avenue, with its cobblestone street and transit and pedestrian orientation, serves Portland's historic Yamhill District. Skidmore Fountain is the centerpiece of the Skidmore Fountain Station. Stephen Skidmore commissioned the cast iron fountain in 1888 to provide water for "horses, men and dogs". It was created by noted sculptor Olin Warner. The fountain stands next to the new LEED-certified headquarters of Mercy Corps, an international humanitarian aid organization. MAX trains receive traffic signal priority on First Avenue, as well as on NE Holladay Street once the train crosses the river.

MAX crosses the Willamette River on the Steel Bridge, a through-truss, double lift bridge. The 1912 bridge is unique in being able to lift the two decks independently and in carrying pedestrians, bikes, trains, light rail, buses, cars and trucks. Bikes and pedestrians generally use the esplanade trail on the lower deck, although they may also use sidewalks on the upper deck. The bridge is owned by the Union Pacific Railroad and maintained in agreement with the Oregon Department of Transportation and TriMet.

Next, the Rose Quarter and Convention Center stations serve two of the region's major event venues. Transit greatly reduced parking requirements for these major public spaces. As MAX tracks approach this area from the east end of the Steel Bridge, the MAX Yellow Line turns north, while the Blue, Green and Yellow MAX lines continue east. The 785,000 square foot Rose Garden Arena, constructed in 1995, is home to the Portland Trail Blazers as well as

concerts and events. Architects Ellerbe Becket created the building in the shape of a Belgian sea captain's cap. Behind the Rose Garden is Memorial Coliseum, built in 1960 as the first home of the Trail Blazers. The curtain wall design with outstanding city views is perhaps architects Skidmore, Owings and Merrill's most successful Portland project. Further east is the Oregon Convention Center, designed by the ZGF Partnership and completed in 1990. The one-million square foot facility is easy to spot with its tall glass towers that sparkle in the night.

East of Martin Luther King Jr Blvd is the Lloyd District, which was intended as a residential district until oilman Ralph Lloyd purchased it in the 1920s. He hoped to create a second downtown, but much of this property sat vacant until the construction of a large shopping mall in 1960. When it opened, Lloyd Center claimed the status as the largest urban shopping mall in the nation, foreshadowing a lasting nation-wide trend. The district later sprouted office buildings, including the Bonneville Power Administration headquarters, and the Oregon State Office Building and Liberty Mutual. The District has a transportation management association that is one of the most successful in the region. Nearly 40 percent of Lloyd District workers who participate in TriMet's Universal Pass program take transit, while another six percent bike to work.

2. Get off the train at the Hollywood/NE 42nd Ave Station. The Hollywood Station is located down within Sullivan's Gulch, a major urban transportation corridor including Interstate 84, freight rail, and the inner eastside segments of the Blue, Red, and Green MAX Lines. The station is also a key transfer hub with connections to four cross-town bus lines, two of which are Frequent Service routes (buses depart about every 15 minutes or less during peak hours). Like most all transit lines across the country situated in or parallel to a freeway, this adjacency has been a challenge for TOD.

Take the stairs or elevator up to the pedestrian and bicycle overpass. To the south is the stately Laurelhurst neighborhood, one of Portland's attractive residential communities, designed in 1909 by the Olmstead brothers. Departing from the grid pattern characterizing most of Portland's eastside, the leafy neighborhood includes a mixture of English, Tudor and bungalow homes oriented towards tree-lined curvilinear streets. Almost exclusively single family homes, Laurelhurst

is, however, well served by charming dining and shopping districts along Belmont Street to the south, Glisan, Burnside and Stark streets to the west and the Hollywood Town Center to the north.

Walk from the transit center due north to experience the historic mixed-use Hollywood Town Center. Since 1986, the area has experienced significant redevelopment, especially after the City of Portland adopted the Hollywood and Sandy Plan in 2000. Some of the more notable projects are visible from the overpass. Abutting the transit center to the east is the first phase of a retail and office development completed in 2005 on a former lumber yard site. Anchored by a 24 Hour Fitness Center, the 3-story 84,000 square foot building includes office space, ground floor retail and a 250-space parking structure. A second phase is planned along Halsey St.

East of the Hollywood/NE 42nd Ave Transit Center on the east side of the I-84 off-ramp is a \$70 million Providence Health and Service facility. The six-story office building will house as many as 1,200 employees, consolidating groups from Providence health plan, medical group and information technology services. The project also includes a public plaza and a 211,000-square-foot parking structure following the curve of the off-ramp.

Explore the historic core of Hollywood by walking north across Halsey and turning left. The Trader Joe's re-used an existing building that was not in conformance zoning adopted in the Hollywood and Sandy Plan, however modest upgrades did not trigger minimum density or residential use requirements. Take a right and head north on 41st Avenue. Cross Broadway and walk through the parking lot. The district and the MAX station derive their names from the historic Hollywood Theater located at Sandy Boulevard and NE 41st Avenue. Opened in 1926, the 1,500-seat venue's ornate façade includes an iconic Byzantine rococo tower. Surrounding the theater along Sandy and nearby side streets is a mix of destination and everyday uses including shops, restaurants and services. The vacant lot west of the theater is where a building burned down. The site has not yet redeveloped.

Continue north across Sandy. At 41st and Tillamook you will see the Hollywood Library and Bookmark Apartments project completed in 2002. This award-winning project includes a Multnomah County branch library, a café and 47 upper-floor apartments.

Walk east on Tillamook. At 43rd Avenue is The Beverly, a mixed-use development completed in 2010. Named after Hollywood resident and children's author Beverly Cleary (the district figures into some of the adventures of Ramona Quimby and Henry Higgins), the 5-story project includes a Whole Foods Grocery on the ground floor, two levels of structured parking and two upper floors composed of 53 condominium units.

Return to the station by heading south on 43rd to Halsey or meandering through the side streets along the way.

Board the MAX Blue Line to Gresham. (Neither Red nor Green Line trains serve the next tour stop.) The train will pass through the Gateway Transit Center which is the confluence of the Blue, Red and Green MAX lines, and important bus and rail transit hub. For many years Gateway had the largest Park & Ride lot on the TriMet system. Even as the first MAX line opened, TriMet was making plans for converting this surface parking into TOD. That vision began to be realized in 2006 with The Oregon Clinic. This project resulted from a partnership between The Oregon Clinic, the Portland Development Commission and TriMet. The project includes structured parking and provision for future housing above the Clinic. The development master plan that focuses on the Park & Ride lots required close coordination with the Federal Transit Administration. It is hoped that this project will be a catalyst for future redevelopment in Gateway, which is designated as a "Regional Center" in the Metro 2040 Plan and intended for more growth and higher intensity land uses.

The course of the MAX Blue Line transitions as the Red Line curls to the north and the Green Line follows the I-205 freeway to the south. The Blue Line aligns itself with East Burnside Street, where it runs in a street median on the way to Gresham.

3. Get off the train at E 102nd Avenue, a typical split-platform station straddling the arterial street. To the southeast of this intersection sits the Russellville community. Formerly the site of a public school, these 11 acres now include a 550-unit residential neighborhood that recently added Russellville Park, a senior center. The development offers a mix of housing types and densities. Plans call for commercial development in the immediate neighborhood. Take a brief walk through this community. Blue Line MAX trains generally operate with 15-minute frequency.

Board the MAX Blue Line at the same eastbound platform to continue the ride to Gresham. The line travels down the middle of East Burnside Street through mid-20th century communities, annexed to Portland in the 1980s. This first MAX line met with concerns regarding the partitioning of the neighborhood between major street crossings. This was mitigated with the construction of at-grade "Z" crossings aligned with the street grid. While infill development can be spotted along this route, there has been little land assembly and redevelopment in this stretch of the alignment.

The Blue Line crosses into the city of Gresham one block west of the E162nd Ave Station. When light rail was introduced in the 1980's the City of Gresham was reluctant to embrace light rail as a part of their community plans. Since that time, it is not only a part of the plans, but the city has migrated its center of gravity to this transit mode. Six light rail stations provide convenient linear connections within the city.

One notable TOD development is the West Gresham Apartments at the E 172nd MAX station on the northeast corner. This residential development was built by the Cascadia Behavioral Healthcare Company for low-income persons with mental illness and addiction problems. The development, with modest ground-floor retail space, used excess right of way that TriMet had set aside for a future light rail power substation. That future need was accommodated within the development site plan.

As the MAX Blue Line enters the City of Gresham, it passes through the Rockwood community. TriMet partnered with the City to revitalize the Rockwood/E188th MAX station in anticipation of major redevelopment of the heart of this district. TriMet's largest light rail operations base, Ruby Junction is visible to the south as the train leaves the Ruby Jct/E 197th MAX station. The Ruby Junction facility accommodates the majority of TriMet's light rail vehicles and has been expanded several times as the system has grown. It also is home of the central command/dispatch center for buses and MAX trains. The MAX Blue line leaves E Burnside Street here, following the former Portland Traction Line, through an earthen cut to central Gresham.

4. Get off the train at Civic Drive Station (opening November 2010). The Civic Drive Station is located in the heart of the Gresham Civic Neighborhood, an area of the City envisioned as

a compact regional center with a vibrant mix of residential, employment, retail, and entertainment uses. The station sits at the west end of a site that was formerly a lumber mill. When the City of Gresham and the property owner planned for redevelopment of the site in the 1990s, TriMet committed to build a new station once development reached a certain intensity. That intensity is now met and the station was added in 2010.

Metro's TOD Implementation Program owns several large parcels in the area including the vacant sites adjacent to the station. Metro conceived and helped fund the station and The Crossings, the mixed use project east of the station. The project provides 81 housing units on 2.06 acres and includes 20,000 square feet of ground-floor retail development. The Center for Advanced Learning, a magnet high school operated in partnership with local businesses and universities, is across the tracks.

Walk east along the sidewalk directly south of the MAX line towards the Gresham City Hall MAX Station. This path curves around back side of The Crossings and hugs a small wetlands area restored as part of the Gresham Station shopping center. You may want to make a coffee and restroom stop at the Borders Books located about mid way along the wetlands path.

From here, turn south on the sidewalk next to Borders and walk one block to see the layout of the Gresham Station shopping area. The City's comprehensive plan established a grid street pattern in the Civic Neighborhood. Gresham Station was required to dedicate public street right of way, rather than use private drive aisles, and to build up to the newly created public sidewalks. As the area grows in the future, parking lots can be developed as urban blocks.

5. Board the eastbound MAX Blue Line to Gresham, and ride one stop to the east, getting off MAX at the Gresham Transit Center Station. Take a short loop walk, first to the southwest past the Gresham Central Apartments, completed in 1996 as one of the first TOD projects in Gresham. Some of these 90-units face a pedestrian promenade built on excess rail right of way, creating a pedestrian-friendly interface between the community and light rail. TriMet's contribution

of needed right of way for the project leveraged design elements which might not have been possible in this suburban context.

Continue west and the turn south on NE Roberts Avenue for a 5-minute walk to Gresham's historic downtown. At NE 3rd Street, is the contemporary designed Central Point development, with 29 housing units and 3,500 square feet of ground floor retail. This project was an early step by the City to embrace light rail as a catalyst for redevelopment and caused the City to adopt policy changes to support TOD.

One block west, N Main Avenue forms the spine of Gresham's historic downtown. Walk south or north a few blocks to explore the gradually emerging shops, cafes and restaurants on Main Street. Gresham's History Museum is located in the 1913 Carnegie Library building at NE 4th and Main.

Walk east on NE 2nd to Hood Avenue. Gresham's Center for the Arts plaza is the new "living room" for Gresham and features "art pillars", an interactive public fountain, large gathering space for concerts, seating, and dynamic lighting effects enhance nighttime activity. Fundraising is ongoing for an arts center building.

The 24-unit Beranger Condominiums located at NE Hood and 3rd Avenue incorporates dramatic design and numerous sustainable treatments.

Continue north to return to the Gresham Central Transit Center north 0.4 miles (7 minutes) along NE Hood Avenue.

Board a westbound Blue Line MAX to Hillsboro or SW 158th/Merlo. The return trip will take approximately 45 minutes.

At 199 acres, Orenco Station is the largest master-planned community on the MAX system. It features a connected network of local streets and a variety of community amenities, including a commercial and retail center and community parks.



Chapter Five

Westside

The Portland region's Westside is defined by the Willamette River, dividing east and west Portland, and the West Hills, which mark the gateway from Portland to the Sunset Corridor. Intel, Nike and Columbia Sportswear are among big-name employment anchors on the Westside that have attracted a critical mass of high tech and sportswear firms to the region.

Even as it has become a dynamic hub for the state's high tech economy and home for large employers, the Westside continues to play an important role in Oregon's agricultural production. Finding the appropriate balance among urban, suburban and rural development is a persistent theme in the political discourse of the Westside.

Westside MAX Blue Line

The Westside segment of the MAX Blue Line is an 18-mile light rail alignment that connects downtown Portland with Beaverton, Hillsboro and unincorporated Washington County. Construction on this line started in 1993 and service began in September 1998. Within 17 months of operation, ridership on the line reached 2005 projections, with half of the riders in this corridor new to transit. Ridership levels for this alignment have averaged approximately 21 million annually since 2003.

Project costs totaled \$963 million. Federal funds contributed \$703 million or 73 percent of the costs; state and local funds paid the \$259 million balance. The project includes a three-mile twin-tube tunnel through Portland's West Hills, with a station below Washington Park that is the deepest underground transit station in North America at a depth of 260 feet.

The Westside extension represents the region's first conscious commitment to use transit to help shape development. The alignment was sited along a corridor that had many stretches of undeveloped land. Many believed that by combining land use and transportation planning efforts, the light rail extension could effectively accommodate population growth and help create vibrant communities around station areas. In fact, between 2000 and 2008, the population within half a mile of the Westside stations from the Sunset Transit Center to the western terminus in Hillsboro increased by an estimated 23 percent, while the population of the three counties served by TriMet increased by only 12 percent. Since voters approved a bond measure for the Westside



The Round at Beaverton Central emerged from Westside Station Area Planning.

light rail extension in 1990, more than \$2 billion in new development has occurred in Westside Blue Line station areas. There are fewer and fewer vacant parcels along the alignment. Hillsboro has taken on second-generation station area planning with a bold plan for a light rail spur that would help transform a suburban office park into a vibrant mixed-used community. And there's a new rail option—WES Commuter Rail—connecting Tigard, Tualatin and Wilsonville with the regional rail system.

The Westside extension of the Blue Line is also a national model for integrating public art with transit station design—all of the 20 stations are embellished with artworks by a variety of artists and are designed to reflect the character, diversity and history of the surrounding community. The transit project has received numerous awards, including the 2000 Design Achievement Award from the National Endowment for the Arts, the Presidential Award for Design Excellence 2001 and the Design for Transportation National Award 2000.

Westside station area planning

Between 1993 and 1997, local governments, with funding and technical assistance from TriMet, Metro and the Oregon Department of Transportation (ODOT), undertook an unprecedented \$2 million station area planning effort to address 20 new MAX stations adjacent to 1,500 acres available for development or redevelopment. Each local government implemented its own station community planning process consistent with existing land use, zoning and development regulatory procedures. Conferences, seminars and media outreach educated citizens, developers, builders and the

financial-lending community about the new market-driven possibilities for less dependence upon the automobile. Each station plan bears the stamp and character of its individual community, yet works in concert with others due to the oversight of a Transit Station Area Planning Management Committee.

At the outset of the planning process interim ordinances were created to prohibit counterproductive uses in the station areas while the longer planning process was under way. Working with the development community, landowners and citizens, the local agencies spent the next four years writing and adopting standards for zoning, design and transportation access. Each jurisdiction and community adopted standards that support its own transportation and development goals.

Station area plans were also affected by the positions of major landholders, which in some cases controlled several hundred acres around stations. To resolve differences, participants in the process generally worked out standards on a station-by-station basis. The Intermodal Surface Transportation Efficiency Act of 1991 and the Westside Light Rail Project gave TriMet, Metro and ODOT a seat at the table.

Station area planning core objectives sought to:

- Reinforce the public's investment in light rail by assuring that only transit-friendly development occurs near the stations.
- Recognize that station areas are special places; the balance of the region is available for traditional development.
- Rezone the influence area around stations to transit-supportive uses.
- Build a broad-based core of support for transit-oriented development with elected officials, local government staff, landowners and neighborhoods.
- Setup a self-sustaining framework to promote and encourage transit-oriented development once the planning was complete.

A number of issues were resolved as part of the planning process, including proposed connections of local streets, protection of natural resources and the design and density of new development. Plans also often addressed new standards for streets, lighting, sidewalks, public landscaping, stormwater and water quality facilities, usable open space and urban design.

Tools developed as part of the plans include:

- Minimum residential densities
- Required residential densities
- Minimum floor area ratios
- Elimination of set-backs and addition of required build-to lines
- Mixed-use zones
- Prohibitions against large format retail
- Maximum off-street parking allowances
- Shared parking provisions
- Lower parking ratios

A few examples of how the project and its partners pursued Westside station area planning goals follow.

Goose Hollow (Portland)

Most of the Westside alignment is suburban, but the three stations in the Goose Hollow neighborhood just west of Portland's downtown core serve a developed urban neighborhood with a diverse mix of housing, employment and institutional uses. The neighborhood very actively influenced the design of the rail project—the advocacy of residents resulted in enhanced paving, decorative light fixtures, curb extensions, street crossings, signals, buried utilities and public art.

The Goose Hollow station area planning budget was \$250,000. The City of Portland adopted interim regulations in April 1994, a final plan in January 1996 and design guidelines in February 1996.

Institutional and employment uses, including PGE Park, Lincoln High School, the Multnomah Athletic Club and the printing facilities of The Oregonian newspaper, consume significant land in each station area. To ensure a vital residential population, the city called for station plans to increase housing. A major point of contention was the city's recommendation to create "Required Residential Development Areas." These are commercially zoned areas, but new development must include housing at the minimum density of one unit per 2,900 square feet of net site area. Since the plan's adoption, several new housing units have been constructed in commercial zones. Although the city's adopted standards include limits on parking, balancing the parking needs of new development remains a key issue on a project-by-project basis.

185th/Quatama

Bound on the east by a five-lane arterial dotted with shopping centers and on the west by more

than 600 acres of green fields, and with the promise of two Westside light rail stations, this Hillsboro community:

- Planned a 2.5 million-square-foot business center.
- Laid out a 200+ acre medical and scientific research and development park.
- Retained a 100+ acre wooded wetland.
- shifted to neighborhood-scale commercial development.
- Zoned land for more than 2,000 dwelling units ranging from small-lot, neo-traditional, single-family dwellings to three-story apartments, with more than 50 percent classified as affordable housing.

More than a decade later, Hillsboro is now revisiting plans for the 185th/Quatama area. A new concept plan calls for infill of the AmberGlen business center—which was developed from 1998–2002 with 1.2 million square feet of office space—with a mix of mid- to high-rise residential and commercial buildings. A street grid would transform the office park to an urban setting, and a spur from the MAX Blue Line would link the area north of the existing line to the regional rail system. Oregon Health Science University (OHSU) owns a large vacant parcel northeast of the Quatama/205th MAX Station. OHSU's decision to expand in the South Waterfront area adjacent to downtown Portland rather than this suburban site was part of the impetus for creating a new plan. A study of development opportunities for the OHSU parcel will help shape the community's plan.

Orenco Station

The City of Hillsboro and the owners of a large tract of land north of the proposed rail line worked closely to develop a master plan for what is now the award-winning Orenco Station. Named for the Oregon Nursery Company, which also gave its name to the area at the turn of the century, Orenco Station is a 199-acre, pedestrian-oriented community featuring traditional architecture. It is the largest master-planned community on the MAX system. It features a connected network of local streets and a variety of community amenities, including a commercial and retail center and community parks.

Property owner PacTrust developed an Orenco Station master plan that was approved by the City of Hillsboro in September 1997. It features a neighborhood “main street” retail area connected to a series of surrounding residential neighborhoods via tree-lined streets with wide

sidewalks, parks and open spaces. The master plan provides housing for 4,000 Hillsboro residents in 1,834 single-family homes, townhouses and apartments. The master plan is designed to capture the essence of small-town business and residential districts with traditional neighborhood services, retail shops below apartments, small residential lots with front porches and minimal setbacks, and well-distributed parks and open space.

The master plan is effectively a new zoning code for the area allowing smaller lots, mixed-use development, zero-lot line development, accessory dwelling units, narrower streets, alleys and shared parking. Working together, PacTrust and the City of Hillsboro developed a code that balanced project feasibility with regional goals of higher-density, mixed-use development around MAX station areas. Close collaboration between stakeholders made the complex negotiations easier.

Downtown Hillsboro: 12th/Tuality/Central/Government Center

Downtown Hillsboro is small-town America, not Portland suburbia. The Downtown Station Community Plan capitalized on that tradition and maintains the single-family character of its neighborhoods while allowing increased density immediately adjacent to the MAX line and in the Central Business District. Hillsboro has undertaken various efforts since adopting its station area plans, including forming a Local Improvement District to fund streetscape improvements, building a new city hall and a public plaza, and developing a parking plan and a Downtown Framework Plan. Hillsboro is currently in the process of seeking approval to create an urban renewal district in the downtown area to help fund redevelopment initiatives. The City has also supported the expansion of institutional anchors Tuality Hospital and Pacific University.

Washington County Commuter Rail

Over the past 70 years the route ultimately chosen for the WES (Westside Express Service) Commuter Rail alignment has been used for freight service, but it once provided the route for two passenger lines. Oregon Electric Railway operated on one set of tracks along the alignment from Portland to Salem in 1908 and later expanded service to Eugene. By 1914, Oregon Electric had 26 trains entering and departing Portland daily. The rise of

the automobile, however, diminished service and the railway discontinued passenger service by 1933.

In 1918, Southern Pacific Railway also operated “The Red Electric” on the route, running 32 trains entering and departing Portland daily, but service ended in 1929.

Today, Portland & Western Railroad owns the freight line and, in a groundbreaking agreement, provides contract services to WES.

Washington County is bound by geographic constraints that restrict transportation options. Low mountains define the east and west sides of the corridor, and the Tualatin River and Fanno Creek run through the area.

Over time, traditional travel patterns have shifted in Washington County. Rather than living in the suburbs and commuting to work in Portland’s downtown core, a significant number of people live and work within the I-5/Hwy 217 corridor.

From 1994 to 2000, the number of households in the corridor grew 34 percent faster than the rest of the Portland region, while the number of jobs rose at a rate 55 percent faster than anywhere else in the region. Furthermore, corridor employment is expected to increase by more than 40 percent by 2025.

Driven by the desire to improve transit options for residents and employees in the heavily traveled corridor, local officials began to explore various alternatives in 1996.

Washington County and its eastern cities identified a unique opportunity in the 100-year-old rail corridor that was then used primarily for freight transport. They realized the potential to use this resource for adding a commuter rail line to serve four cities: Beaverton, Tigard, Tualatin and Wilsonville.

Together with county leaders, the mayors of Beaverton, Tigard, Tualatin, Wilsonville and Sherwood championed commuter rail. Working with Metro, TriMet and the Oregon Department of Transportation, the team launched a feasibility study to consider the viability of commuter rail. Obtaining or building a right-of-way in a high growth area is challenging and expensive; this concept took advantage of the existing railroad right-of-way to limit construction impacts.

The project cost \$161.2 million; federal funds provided 36.4 percent of the funding while state and local project partners provided the remainder.



WES Commuter Rail opened in 2009.

WES vehicles share the track with freight trains, and additional double track was constructed to allow freight and commuter trains to pass each other along the route. In addition, the project team installed a state-of-the-art signal system with computerized dispatch for vehicle coordination and safety. Diesel multiple unit (DMU) cars were produced for the project, and TriMet maintains the vehicles at the WES Wilsonville Maintenance Facility. The railcars are self-propelled units, and do not require a locomotive engine or overhead electrical wiring. They also can pull a second car. Four cars (three single-powered cars and one trailer car) were purchased to serve the corridor.

The artwork created for the five WES stations consists of a series of interactive sculptures, titled The Interactivators. Each sculpture speaks to the natural environment of the surrounding community, while remaining linked to the other sculptures along the rail line.

To prepare local communities for WES service and an increase of 32 trains per day with the ability to go 60 mph through 29 crossings, TriMet developed a safety outreach campaign. Live safety presentations and printed safety materials were provided to motorists, residents, potential trackway trespassers, K-12 students, law enforcement officials, emergency responders, social service agencies and professional drivers, including delivery and school bus drivers.

Materials containing core safety messages consisted of direct mailings, fact sheets, posters, billboards and two versions of a safety video—one for a general audience and one for middle and high school students. Safety materials were sent to and published by a variety of media and community resources. Ultimately, more than 50,000 individuals and households received WES safety messaging.

WES Commuter Rail opened in February 2009.

Transit-Oriented and Joint Development

The landscape around Westside MAX station areas has changed considerably since the project opened in 1998. The following development projects, described from east to west, are among those that have advanced transit-oriented development (TOD) practices in the region.

Goose Hollow Developments

TriMet acquired several parcels of land in the Goose Hollow neighborhood to stage construction of the Westside tunnel. At the time, the Federal Transit Administration (FTA) expected surplus property to be sold for market value. Metro and TriMet hosted the FTA administrator on a visit to Portland in 1996 to pitch the idea that a transit agency should use the disposition process to ensure future uses support the transit investment. In 1997 FTA issued its policy on joint development to encourage these efforts.

With the new policy in place, TriMet, the City of Portland Planning Bureau and the Goose Hollow Foothills League neighborhood association formed a partnership to guide development on three parcels owned by TriMet at light rail stations. The partnership created a local development committee, which hired consultants to provide project management, design, market evaluation and legal assistance. Two of the parcels have been developed with the Arbor Vista Condominiums and Collins Circle. The third site at SW 18th and Salmon has development plans for a 158-unit, 20-story condominium tower dubbed Allegro that have been on hold since 2006. After overcoming a challenging design approval process that included neighborhood opposition and a redesign effort, the project is now stalled by the economic crisis.

Arbor Vista Condominiums

This condominium development consists of 27 homeownership units located south of the Goose Hollow/SW Jefferson St MAX Station on a very constrained urban infill site. The property includes two mature historic trees that were preserved, and is immediately adjacent to the Kamm House, which is on the National Register of Historic Places.

The Arbor Vista Condominiums were completed in 1998 and were affordable to first-time home buyers at median income. Approximately two-thirds of the units sold at market rate, while the

remaining units sold under a special financing program in which the non-profit developer, Innovative Housing, Inc., provided a second mortgage that made the units more affordable than the market would have allowed. Each homeowner purchasing below-market units received a 10-year property tax abatement on the improved value of the home.

Innovative Housing, Inc. was selected as the developer through a competitive bid process. TriMet was responsible for getting FTA approval for the joint development. The project broke new ground in applying FTA's joint development policy by demonstrating that transit fares generated by the planned development would provide a return to the transit system, thereby allowing TriMet to provide a discount on the value of the property.

The owner of the historic Kamm House appealed the Arbor Vista development proposal to the State Historic Preservation Office. Although the state denied the appeal, it caused delays at the outset of the project.

Location and transit access

SW Howards Way, one block southwest of the Goose Hollow/Jefferson St. MAX Station

Project statistics

Site area: 18,000 sq. ft.

Project program:

27 condominiums

28 parking spaces

Residential density: 66 units/acre

Parking ratio: 1.04 spaces/unit

Completion date: 1998

Collins Circle

TriMet purchased a 23,000-square-foot site in 1995 to use as a staging area for the construction of the Westside Light Rail Project and then for development that would help support the transit investment. Goals and criteria for development of the site encouraged by the local development committee included:

- 60 housing units minimum (more than 100 units/acre)
- Mixed income
- 7,500 sq. ft. of ground-floor commercial uses
- Maximum parking of one space per unit
- Minimize the use of public subsidies
- Sell the land at a value reflecting these requirements

This project demonstrated that public goals and community interests can be best achieved by setting clear criteria at the front end of a project, thereby allowing the developer to focus its resources on developing a building with minimal delays.

In 1997, the Portland Development Commission issued a Request for Proposals for the development of the site, and selected Gerding Edlen Development Company, LLC, through the competitive process. In 2000, the development team completed the 124-unit mixed-use project comprised of ground-floor retail with five floors of housing above and parking below. New higher-density, wood-frame construction methods were utilized to help maximize cost efficiencies. The mixed-income rental property provides 40 percent of its units to residents earning less than 60 percent of the medium area income, and the balance of the units are at market rates.

Location and transit access

SW 18th Avenue & Jefferson Street
Goose Hollow/Jefferson Street MAX Station

Project statistics

Site area: 23,000 sq. ft.

Project program:

124 housing units

7,600 sq. ft. retail

99 parking spaces

Density: 235 units/acre

Parking ratio: 0.8 spaces/unit

Completion date: 2000

The Civic and The Morrison

The Civic condominiums and The Morrison apartments are among several new developments in Goose Hollow that have followed the lead of TriMet's early joint development projects. Located across from the PGE Park MAX Station, the project site was owned by the Housing Authority of Portland (HAP) and occupied by 138 run-down apartments. HAP partnered with Gerding Edlen Development Company to conceive a mixed-income, mixed-tenure, mixed-use project: 261 market-rate condominiums (The Civic), 140 affordable apartments (The Morrison), 44,000 square feet of retail, underground parking and a pedestrian plaza.

The five-story Morrison offers affordable housing to households earning less than 60 percent of the area median income, and 45 units are reserved for seniors and persons with disabilities with very low incomes who are at risk of homelessness. The

Civic provides workforce housing opportunities in a 16-story condominium building with units priced as low as \$175,000 when the project opened in June 2007. Overall, the units average 737 sq. ft and had an average sale price of \$272,000.

The project received LEED Gold Certification from the U.S. Green Building Council for its innovative, sustainable design. In addition to its transit orientation, the development includes a green roof on The Morrison, bioswales in the plaza, high efficiency glass and operable windows.

Location and transit access

W. Burnside/NW 19th Ave
PGE Park MAX Station

Project statistics

Site area: 1.37 acres

Project program:

401 units (261 at The Civic and 140 at The Morrison)

44,000 sq. ft. retail

400 parking spaces

Completion date: 2007

Developments west of Goose Hollow

The Round

The Round at Beaverton Central was among early plans for ambitious transit-oriented development on the Westside extension of the MAX Blue Line. A long time in the making, the project at full build-out will be the most intensively developed station on the line.

The City of Beaverton, which owned the 8.5-acre site that formerly included a sewage treatment plant, initiated the project. Development at this site was expected to anchor the relationship between MAX and the city's traditional downtown. The city released a request for proposals to develop the project in 1996. The winning development team proposed a mixed-use project with office buildings, 100 units of housing, a theater and a small hotel. Crescent-shaped buildings would bracket an impressive public plaza adjacent to the MAX station platform.

The development team began construction with private resources, but was unable to secure full construction and permanent financing. Construction of the project ground to a halt in 1998, and the developer ultimately declared bankruptcy. Two partially constructed buildings sat dormant for more than three years.

In 2001, the City and Microclimates bought the property out of bankruptcy court. Subsequently, they sold the property to developer Dorn Platz Properties. Dorn Platz concluded that the original plan lacked the intensity to create a “there, there,” and redesigned the site plan to increase the density.

Dorn Platz completed construction of the two buildings started in 1998. These two buildings house restaurants, a bank, residential condominium units and several office tenants, including Coldwell Banker and Open Source Development Labs. A new third building now houses a two-level 24-Hour Fitness and Cambridge College. The parking structure opened in 2006.

Three more buildings and an additional parking structure are planned—ultimately, The Round will have up to 600,000 sq. ft. of commercial space, and 900-1,500 parking spaces along with the existing 65 residential units. However, financing for additional phases did not come through and Dorn Platz defaulted on its loans on the properties. The lender foreclosed, leaving the properties among thousands of commercial properties nationwide now impacted by the collapse of the economy.

Location and transit access

Beaverton Central MAX Station

Project statistics

Site area: 8.5 acres total; 6.2 buildable acres

Project program:

65 housing units

190,000 sq. ft. of office

48,000 sq. ft. of retail

399 parking spaces

Future phases:

approximately 360,000 sq. ft. of additional commercial space and additional 500- 1,100 parking spaces

Completion date: 2002-2006

LaSalle Apartments

Trammel Crow Residential (TCR) developed the LaSalle Apartments, attracted to the Beaverton site because of its proximity to a MAX station. In addition, nearby Nike's world headquarters and Tektronix offered a ready-made market for a new rental project. The main challenge was to create a residential identity on a site surrounded by industrial campus buildings and undeveloped land.

Westside station-area planning established a master-planning process to create a transit village for the entire 124 acres surrounding the Beaverton Creek Station on the MAX Blue Line. Slated

primarily for residential uses, the northern portion of TCR's land sat within the master-planning area. North of the station was targeted for a mix of commercial, retail and residential uses. TCR supported the plan's concepts and proceeded with approvals for LaSalle, a 554-unit project with 10,000 square feet of commercial space.

LaSalle is the second phase of a two-phase development completed by TCR. The first phase, Centerpointe, is located just south of LaSalle, within a half-mile radius of the station. It includes 264 units. The total, two-phase project provided 818 units on 38 acres.

Nike purchased the parcel north of the station to control development there, but the property remains undeveloped. This has hurt the retail component of the TCR project by reducing the anticipated number of residents in the station area.

LaSalle's design departs significantly from typical suburban apartments as well as past TCR projects. Clustered around grassy courtyards rather than parking lots, the garden apartments are laid out in a grid pattern with interconnected streets/driveways and a comprehensive pedestrian network. Multiple pathways link the project to the MAX station, with a 10-foot-wide pedestrian spine connecting the heart of the project with both Centerpointe to the south and the light rail station to the north. At the time this project was conceived, rent structures did not support the mid-rise construction needed to achieve high-density thresholds. The densest part of the project is the mixed-use, mid-rise building across from the station platform—this is a three-story, wood-frame structure above a concrete parking platform that achieves a density of 53 units per acre.

As TCR planned the development of LaSalle/Centerpointe, TriMet worked on plans for its Park & Ride lot at the station. TCR asked TriMet to move the Park & Ride 300 feet east to allow buildings to locate closer to the station. TriMet redesigned the lot and allowed some of the spaces to be converted to short-term parking to support the neighborhood retail shops on the west edge of the Park & Ride. Co-locating retail activity with the Park & Ride adds to the safety of the lot by providing more oversight and visibility. TriMet and TCR also shared costs of building the public roads and sidewalks that border each of the two properties to ensure a cohesive design and allow for potential future development on the TriMet property.

Part of TCR's strategy for creating a more compact, walkable development involved reducing the amount of land for parking. TCR's goal was to provide 1.1 parking spaces per unit. The City of Beaverton agreed to a variance to drop the required number of spaces from 2 to 1.6 spaces per unit; however, an adjacent property owner objected. A compromise agreement provided for 1.8 spaces per unit.

Location and transit access

SW Millikan Way & SW 153rd Ave, immediately south of Beaverton Creek MAX Station

Project statistics

Site area: 23 acres

Project program:

554 apartments

10,000 sq. ft. commercial

Density: 24 units/acre

Parking ratio: 1.8 spaces/unit

Completion date: 1997

Portland Community College – Willow Creek



When Portland Community College (PCC) went looking for a new home for its Westside workforce training programs, it identified transit access as an important requirement for a new site and sought TriMet's help to find a location. TriMet determined that parking at the Willow Creek Transit Center was underutilized and offered to make room for PCC, which leased the land for 99 years. The PCC Willow Creek Workforce Training Center was completed in December 2009.

The 100,000 square foot building sits on a 60,000 square foot site that had been used for 15 quick-drop parking spaces. Although siting PCC's building at this location required designing for an irregularly shaped site, both agencies agreed the project would be the most successful if it fully activated

the transit center and had a direct connection to the MAX station. The location posed an additional challenge, requiring the temporary move of all bus stops while site work was under way.

In addition to the quick drop spaces displaced by the project, PCC has the right to use 120 parking spaces in the adjacent Park & Ride lot. TriMet demonstrated to FTA that despite reduced parking, the new development would generate a net increase of 40,000 transit trips a year.

The educational center serves as a one-stop for the unemployed and under-employed, and houses programs including GED classes, certified nursing assistant training, medical assisting and emergency medical services. In the evenings and on weekends an array of non-credit courses, from gardening to financial management to exercise, add a new dimension to activities accessible to the neighborhood and by light rail. Programs activate the center from 7 a.m. until 10 p.m.

The project also demonstrates several aspects of environmental leadership. Roof-mounted solar panels will generate more than 100,000 kilowatt-hours per year, adding up to 37 percent energy cost savings. Landscaping and irrigation systems are designed to reduce potable water use by more than 30,000 gallons annually. Inside the building, efficient water features will produce a 75 percent water savings, reducing the annual water consumption by an estimated 240,000 gallons. The building was constructed with approximately 28 percent recycled material. Beyond that, almost 13 percent of the building materials were created within a 500 mile radius and, during construction, the project diverted 94 percent of waste from landfills. The facility, which is LEED Platinum certified, also includes bike parking and changing rooms.

Location and transit access

Willow Creek/SW 185th Ave Transit Center

Project statistics

Site area: 60,000 sq. ft.

Project program:

100,000 sq. ft. commercial

Completion date: 2009

Nexus

Nexus is a mixed-use project consisting of 422 units of housing, 7,100 square feet of ground floor retail along Orenco Station Parkway and a 4,500 square foot clubhouse, including a conference center, fitness center, theater and lounge. The

project was developed with a relatively high density of 40.5 dwelling units to the acre.

Nexus creates an active and pedestrian-friendly streetscape that links the nationally recognized Orenco Station development on Cornell Road all the way to the Orenco Station MAX light rail station. Nearly half of the units offer large two- and three-bedroom spaces making Nexus a child-friendly, transit-oriented development targeted towards young professionals with children. This development was completed by Simpson Property Group in 2008.



Location and transit access

1299 Orenco Station Parkway
Hillsboro, Ore.
Orenco/NW 231st MAX Station

Project statistics

Site area: 10.4 acres

Project program:

422 apartments

4,500 sq. ft. clubhouse

7,100 sq. ft. retail

454 parking spaces (174 in carports and 280 uncovered)

Residential density: 40.5 units/acre

Completion date: 2000

Orenco Station

The old Oregon Nursery Company, which gave its name to the area at the turn of the century, never foresaw such a crop as is springing up at Orenco today. Orenco Station is a 199-acre pedestrian-oriented community featuring traditional architecture. Located near the Orenco MAX Station in Hillsboro and Intel's \$2 billion Ronler Acres facility, Orenco Station is the largest master-planned community on the MAX system. It features a connected network of local streets and a variety of community amenities, including a commercial and retail center and community parks.

Master plan

PacTrust's Orenco Station master plan was approved by the City of Hillsboro in September 1997. It features a neighborhood "main street" retail area connected to a series of surrounding residential neighborhoods via tree-lined streets with wide sidewalks, parks and open spaces. The development will eventually provide housing for 4,000 Hillsboro residents in 1,834 single-family homes, townhouses and apartments. The master plan is designed to capture the essence of small-town business and residential districts with traditional neighborhood services, retail shops below apartments, small residential lots with front porches and minimal setbacks, and well-distributed parks and open space.

Orenco Station is a complicated development, involving several partnerships. Originally zoned for industrial uses, Orenco Station's code was changed to mostly mixed-use and residential when the construction of Westside MAX was announced. Working together, PacTrust and the City of Hillsboro developed a code that balanced project feasibility with regional goals of higher-density, mixed-use development around MAX station areas. The complex negotiations to change the code were made easier by close collaboration between stakeholders.

Nearby

At the eastern portion of the site, Fairfield Investment Company constructed the 360-unit Cortland Village and 264-unit Seneca Village. Between Campus Court and Cornell Road, Simpson Housing L.P. built 800 apartments featuring neo-traditional row houses in the brownstone tradition. North of Cornell Road and south of Butler Avenue is the 68-acre neighborhood of for-sale housing by Costa Pacific in partnership with PacTrust that includes, townhouses and single-family cottage homes.



Orenco Station community was voted the Best Planned Community by the National Association of Home Builders in 1999.

Location and transit access

Between Butler and Cornell Roads.
Orenco MAX Station

Project statistics

Site area: 199.5 acres

Project program:

1,834 for-sale units, condominiums and apartments

450 single-family detached and townhouses

1,384 luxury apartments, 1,200-2,500 sq. ft.

Retail/commercial space: 60,000 sq. ft.

Density: 40.5 units/acre

Parking ratio: 1.8 spaces/unit

Completion date: 2000

The second phase of the campus required a zoning code variance, which was denied by the City of Hillsboro's Planning Commission in 2007 but then approved on an appeal to City Council. Neighbors objected to the structure but lost subsequent appeals to the Oregon Land Use Board of Appeals (LUBA), the Oregon Court of Appeals and finally the Oregon Supreme Court. After a year-and-a-half of land use disputes, construction of the 60,000 square feet structure began in summer 2009 and was completed in August 2010. The second building consolidates the School of Professional Psychology, previously mostly housed in downtown Portland, bringing total student enrollment in Hillsboro to about 1,000.

The university plans to open a third building, providing up to 132,000 square feet, by 2014. A fourth building may be added in 10 years.

The decision to locate Pacific University's new Health Professions Campus adjacent to Tuality Community Hospital and MAX light rail was a strategic move. Partnerships with the Virginia Garcia Memorial Health Center, the City of Hillsboro, Washington County, TriMet, Metro and the Hillsboro School District facilitated the process. Tuality Community Hospital was a key facilitator as well, and will continue to be a partner as the Health Professions Campus is further developed.

Pacific University also partnered closely with other organizations such as the Hillsboro Chamber and the City of Hillsboro to provide rental housing along the light rail for use by Pacific University. By providing this amenity to students, Pacific University is encouraging use of transit by students, thereby decreasing the traffic and parking burden to downtown Hillsboro. The City continues to facilitate business and community relationships with the university, devising new neighborhood parking strategies and offering meeting spaces.

Location and transit access

222 SE Eighth Ave.

Hillsboro, Ore.

Tuality Hospital/SE 8th Ave MAX Station

Project statistics

Site area: 10.4 acres

Project program:

Building A

Site Area: 20,000 sq. ft.

Program: 104,000 sq. ft. and 161 parking spaces

Date occupied: Nov. 2006

Pacific University Health Professions Campus



In 2005, Forest Grove based Pacific University decided to dramatically expand its 55-acre campus into the neighboring city of Hillsboro. The university purchased land that is within the Hillsboro Regional Center and is adjacent to the Tuality Healthcare Hillsboro Campus (anchored by Tuality Community Hospital), and the MAX light rail line.

Phase I provides 104,000 square feet of space in a five-story building that houses the College of Health Professions along with ground floor retail. This phase was completed in 2006 and was awarded Leadership in Energy and Environmental Design (LEED) gold status from the U.S. Green Building Council. The \$30 million project serves approximately 639 students, and 78 faculty and staff.

Building B

Site Area: 10,000 sq. ft.
Program: 62,000 sq. ft. and 100 parking spaces
Scheduled for occupancy: Oct. 2010

Building C

Site Area: 10,000 sq. ft.
Program: Up to 132,000 sq. ft. and 200 parking spaces
Scheduled for occupancy: Sept. 2012

Resources

Transit

Westside MAX

trimet.org/about/history/westblueline.htm

WES Commuter Rail

trimet.org/about/history/wes.htm

Planning

City of Portland Central City Plan District

tinyurl.com/pdxcentralcityplandistrict

City of Beaverton Development Code

tinyurl.com/beavertondevelopmentcode

City of Hillsboro Station Area Zoning

Provisions

ci.hillsboro.or.us/Planning/HTMLzoneVOL2/

Washington County Transit Oriented Districts

tinyurl.com/washcotoddistricts

AmberGlen Plan

tinyurl.com/amberglenplan

Transit-oriented development

Collins Circle

collinscircle.com

The Civic and The Morrison

hapdx.org/morrison

Westgate (adjacent to The Round)

westgatesale.com

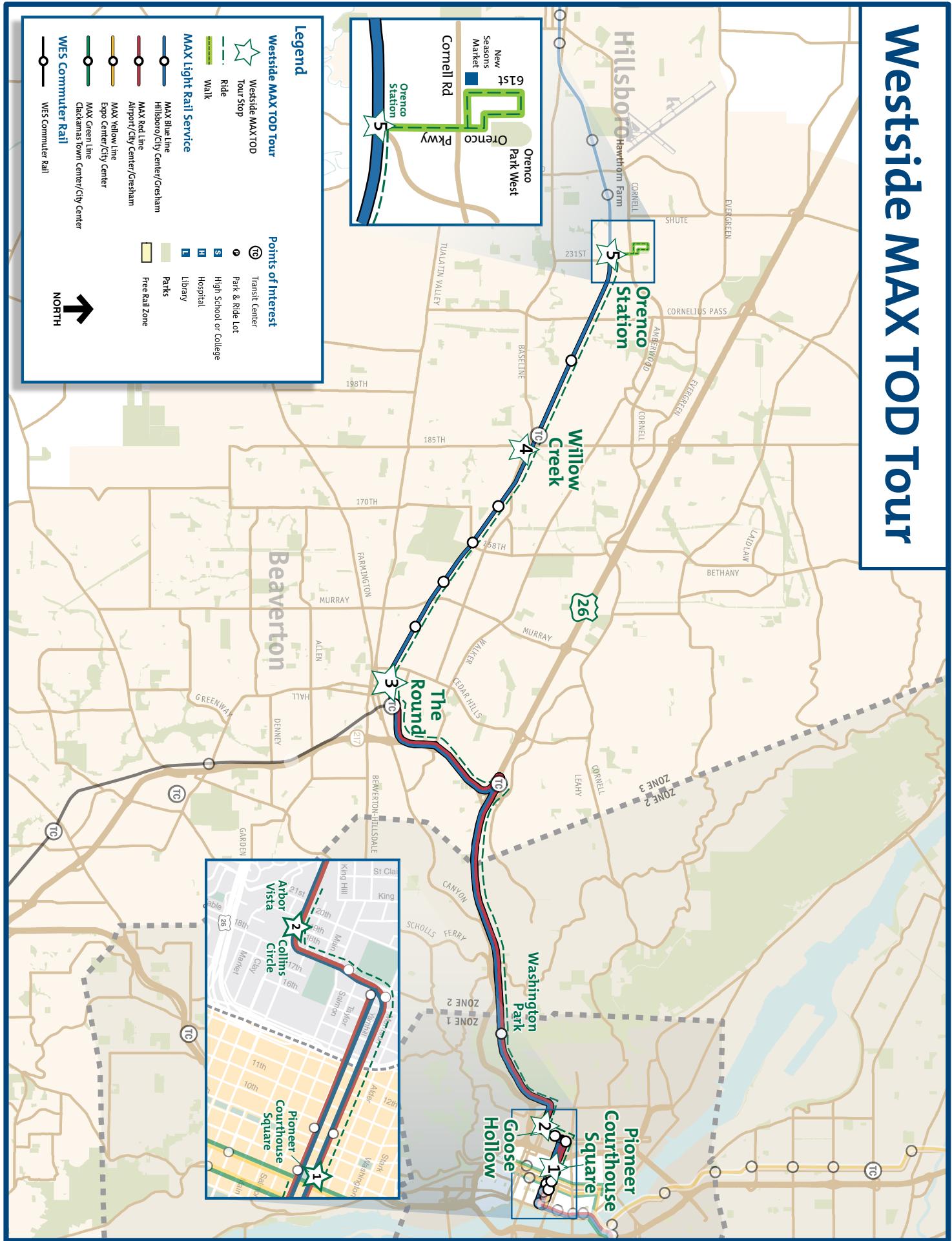
The Nexus

nexusapts.com

Orenco Station

orencostation.net

Westside MAX TOD Tour



Westside MAX TOD Tour

Riding the MAX Blue Line between Portland and Hillsboro offers an opportunity to see a variety of transit-oriented development (TOD) types and approaches. Plan approximately four and a half hours for the tour.

1. Start your tour at Pioneer Courthouse Square, bounded by SW 6th, SW Broadway, and SW Morrison and SW Yamhill in downtown Portland.

This public square, known as Portland's living room, was completed in 1984. It gets its name from the historic courthouse facing the east side of the square. The square was conceived as part of the 1972 Downtown Plan and replaced a full-block surface parking lot. The Square is part of the city's park system, operated by a nonprofit board and professional staff responsible for programming events. There is visitor information and a TriMet ticket office at the square. The entrance is between two water features on the west side of the square. Transit tickets can also be purchased at the ticket vending machines at MAX stops.

Pioneer Courthouse Square is also a transit hub. 6th Avenue is half of the Transit Mall couplet on SW 5th and SW 6th avenues. The Transit Mall was created in 1977 as a means to organize approximately 50 bus lines serving downtown around a high-quality pedestrian realm. In 2004, the decision was made to add light rail to the Transit Mall. Construction of the Green Line began in March 2007, and MAX service opened in September 2009.

Downtown Portland might be considered a "super TOD." More than any single project in the region, downtown offers the mix of uses, pedestrian-friendly design and robust transit choices that make a transit-oriented lifestyle appealing. Downtown is the result of 40 years of planning and investment that have remade the city. For example, Portland provided financial incentives for housing in the downtown. Today, there is a substantial downtown residential population that keeps the city vibrant most hours of the day and evening and helps the region achieve its growth management and transportation demand management goals.

Next, Board the MAX Blue Line to Hillsboro or the Red Line to Beaverton TC on the north side of the square. Either line will take you west to the next stop on this tour. You'll travel along the westside

extension of the MAX, which was completed in 1998. It's a seven-minute ride to the next stop on the tour, Goose Hollow/SW Jefferson. Heading west from the square, the MAX crosses I-405 and travels through the Goose Hollow neighborhood. Property acquisition associated with light rail construction provided TriMet the opportunity to sponsor several transit-oriented developments in the neighborhood.

TriMet acquired a full block at the PGE Park MAX Station in order to accommodate a turn in the tracks. The remainder parcel was transferred to the Portland Development Commission, which oversaw development of the mixed-use affordable housing building on the south side of the PGE Park Station.

2. Get off the train at the Goose Hollow/SW Jefferson Street Station to see two joint developments sponsored by TriMet.

The Collins Circle Apartments is a brick-clad building with steel balconies located to the east of the station. The site was slated to become a car wash, so TriMet strategically purchased the property for construction staging and later offered it for redevelopment. The building combines ground-floor retail and affordable housing with a very low parking ratio—elements that the market was not producing on its own when the project was conceived in 1996. At the southwest corner of the station, the Arbor Vista Condominiums are just visible through the trees. This former construction staging site is now a 27-unit condominium complex. Completed in 1998, the building provides examples of condominiums and structured parking that were rare at the time of the building's construction. Collins Circle and Arbor Vista established new development types in the Portland market and helped set the stage for a number of private, high-density mixed-use projects in the neighborhood that have been completed in recent years.

On the north side of the station is a Portland landmark: the Goose Hollow Inn. The bar's owner, Bud Clark, successfully challenged incumbent mayor Frank Ivancie in a campaign that leaned heavily on his small business and populist credentials. During his service as Portland's mayor from 1985 to 1992, Clark commuted to work by bike and was a proponent of expanding light rail.

To continue on the tour, board the MAX Blue Line to Hillsboro. It's a 14-minute ride to the next stop, Beaverton Central. The train travels through the West Hills and the only tunnel on the MAX system. This 3-mile tunnel includes a stop serving Washington Park and the Oregon Zoo. At 260 feet underground, it is the deepest transit station in North America, and the second-deepest in the world! The train emerges from the tunnel in Beaverton and parallels Highway 26 to the Sunset Transit Center, where there is a 630-space Park & Ride as well as connections to five bus lines. The next stop is the Beaverton Transit Center, which provides connections to 11 bus lines and WES Commuter Rail, which opened in 2009.

3. Get off the train at Beaverton Central, to see The Round, a TOD that has been many years in the making. The project is built on a former sewage treatment plant site that was owned by the City of Beaverton. The project is an island of urbanity in a suburban landscape and represents Beaverton's desire to create a distinct sense of place with this development. Three restaurants and a coffee shop offer places for lunch or a snack, if you are ready for a break. Southwest of The Round, you will see the site of a former movie theater that was purchased by Beaverton and the Metro TOD program to expand The Round's concept.

4. To continue the tour, board the MAX Blue Line to Hillsboro. The ride to the next stop, Willow Creek/SW 185th Transit Center, takes about 11 minutes. As you head west, you'll see some of the \$8 billion in new development that has occurred around the Portland-area MAX stations. At the time of the planning and construction of Westside MAX, the Beaverton Creek, Elmonica, Willow Creek and Quatama station areas were greenfields. The Westside Station Area Planning Program put in place zoning and development standards to ensure new development would support the light rail investment.

Get off the train at Willow Creek/SW 185th Transit Center. The Portland Community College (PCC) building directly in front of the transit center is a recent addition to the station area. When PCC wanted to expand its Workforce Training Center offerings, officials contacted TriMet about the prospects of purchasing land along the Westside MAX line. TriMet's TOD staff identified this former "quick drop" spot as underutilized. TriMet and the Federal Transit Administration agreed to a small reduction in parking spaces and a 99-year lease

of the land to PCC. PCC officials worked closely with TriMet staff to design a facility that capitalized on its proximity to MAX and five bus lines. PCC opened its 100,000 square-foot educational center in 2009, the first LEED certified Platinum facility in Washington County. Transit ridership spiked at this location after just one month.

5. To continue the tour, board the MAX Blue Line to Hillsboro. The ride to the next stop on the tour, Orenco, takes about nine minutes. Get off the train at the Orenco/NW 231st Avenue Station. On the south side of the station is an unremarkable development of townhomes and condominiums. The project creates some modest density, but does not have a distinctive pedestrian or transit orientation. The real destination of this tour is the award-winning New Urbanist community of Orenco Station, located $\frac{1}{4}$ mile north via Orenco Parkway. As you walk north, you'll see the Nexus Apartments, which were constructed in 2007. The Q Condominiums are located on the southeast corner of NW Cornell Road and Orenco Parkway. The developer of these condominiums was able to use the value created by Orenco to finance a project with underground parking in order to achieve higher densities.

Orenco Station is across Cornell Road. Its mix of uses, housing types, materials and care to minimize the presence of the auto are standouts in this suburban context. Sales at Orenco prove that home buyers will pay more per square foot for a home that is part of a high-quality, convenient neighborhood. Walk down Orenco's main street to a public park. From this green, you will see an Intel plant in the distance—evidence of the high-tech jobs that earned the area the moniker Silicon Forest. Then stroll around one of the residential blocks to look at the housing and streetscape design, including alleys. A variety of housing types and sizes, including carriage apartments over some garages, blend seamlessly with single-family homes. Take a look at the grocery store, New Seasons, with apartments over the top, which help make this a complete community. There are several dining options at Orenco, including an Indian restaurant with a lunch buffet and the deli at New Seasons.

Return to the Orenco MAX Station for your trip to downtown Portland. Board the MAX Blue Line to City Center/Gresham.

The return trip to Pioneer Courthouse Square takes about 40 minutes.

***North and Northeast Portland: Patton Park Apartments, 54 units of affordable housing,
is a result of TriMet's joint development program.***



Chapter Six

North and Northeast Portland

The North/Northeast area of Portland is defined by the Willamette River to the west, the Columbia River to the north, Burnside Avenue to the south and the Columbia Gorge to the east. It encompasses inner-city neighborhoods, railroad- and port-related industry, and post war suburban-style growth. Race, ethnicity and income have defined inner North/Northeast more than other areas of the region. Restrictive covenants barring black people from owning property in other areas were among the reasons Portland's African-American community concentrated in North/Northeast. Later, an aging stock of modest housing and proximity to blue collar employment attracted low income households and racial and ethnic minorities.

Public and private decision makers have not always fully considered the impact of plans and investments on a disenfranchised community. Between 1956 and the early 1970s a series of massive construction projects decimated the Albina district, which comprises 11 neighborhoods in North/Northeast Portland. In 1956 voters approved bonds to build the Memorial Coliseum, which was located in the oldest portion of the neighborhood. In the 1960s the interstate highway to Seattle (I-5) was routed away from downtown Portland to the east bank of the Willamette River through central Albina. In the 1970s Emanuel Hospital expanded to eliminate still more housing, and construction began on the Fremont Bridge. Its ramps to Interstate-5 shredded the southern end of Albina, pushing out still more African-American families.

Land use plans

The Albina Community Plan

Between 1980 and 1990, the Albina district lost 550 households. Homes were sometimes worth less than what owners had paid for them and Multnomah County had a sizeable inventory of tax foreclosed properties. In response to these challenges, the Albina Community Plan (ACP), adopted by the City of Portland in 1993, was the first large "area plan" undertaken outside Portland's Central City as an update to the 1980 citywide Comprehensive Plan. Culminating three and a half years of public process, the ACP addressed a broad range of social, economic, housing and land use issues faced by the diverse and economically distressed neighborhoods of inner north and northeast Portland.

Notable ACP policies include:

- Rezoning commercial to residential or mixed-use zones to create commercial "nodes" rather than "strips" and to increase the potential for new residential development.
- Density bonuses and liberalization of accessory dwelling unit rules for development meeting additional design standards to ensure compatibility with desirable features of existing development.
- Creation of a master plan process to govern the expansion of institutions, such as Emanuel Hospital, in the district.
- Comprehensive Plan designations that would increase allowed density when the alignment for proposed light rail line was adopted and funded.
- Identification of historic areas where additional design standards are required.

Kenton Downtown Plan

The North Portland neighborhood of Kenton originally developed in response to the opening of the Swift Meat Packing Company in 1909. Businesses on Kenton's main street, Denver Avenue, were supported by residents of surrounding modest homes for area workers. Much as the greater Albina area suffered a decline in the 1980's, so too did the Denver Avenue business district struggle.

The Kenton Neighborhood Association requested the city to undertake a planning process in anticipation of light service to the neighborhood. The Kenton Downtown Plan, adopted in 2001, resulted in increasing allowed density on a number of targeted sites to promote redevelopment that will accommodate more households to support Denver Avenue. The plan also called on the city to undertake improvements to Denver Avenue. The city implemented Denver Avenue streetscape improvements in 2009.

Interstate MAX Station Area Revitalization Strategy

In between the adoption of the ACP in 1993 and 2000, when the arrival of MAX in North and Northeast Portland was imminent, community concerns shifted. The seven years since 1993 had seen the recovery of the Oregon economy and significant population growth in Portland. Housing prices shot up in neighborhoods with close proximity to downtown. The declining housing values and population loss addressed by



**MAX Red Line to
Portland International
Airport opened in
2001.**

the ACP were a dim memory. New questions were: Would MAX fuel gentrification? Would it cause displacement of low-income households? Would it displace businesses? Would it support community institutions? Can the urban renewal district created to fund Interstate MAX provide other investments to benefit the community?

The Station Area Revitalization Strategy was a community involvement and planning process intended to help the community direct the course of change. It engaged more than 500 community members to articulate a community vision for redevelopment of key parcels at six station areas. In five work sessions held during an eight-month process, participants walked the station areas, brainstormed ideas, studied market conditions, worked with architects, reviewed plans and established priorities. Funding for the strategy was provided by the State of Oregon's Transportation Growth Management Program, the City of Portland and TriMet.

Striking a balance

The strategy attempts to strike a balance between wealth-creating revitalization activities and protection of those who are most at risk of displacement. The vision calls for the creation of more than 1,700 housing units, serving a variety of income levels in a variety of housing types. It calls for commercial development to provide more than 2,000 new employment opportunities for area residents.

The strategy includes a "Displacement Protocol" that requires the city redevelopment agency, the Portland Development Commission, to provide special relocation services to persons or businesses displaced due to a development

proposal called for in the strategy. It also identifies properties that are not candidates for change—either because the community values the existing use or because the property owner has no interest in redevelopment.

The strategy identifies projects ranging from moderately sized mixed-use buildings providing housing over commercial space to rehabilitation of existing housing to simple park improvements. Many of the projects identified by the community would require public subsidies. The "wish list" for all six station areas exceeded the public resources available in the near term. The strategy recommends focusing on demonstration projects to help seed the market, and removing regulatory barriers to the types of projects the community would like but that current zoning makes difficult.

Implementation

TriMet was able to use MAX project funds to purchase two sites identified by the strategy as desirable for redevelopment. TriMet used the Federal Transit Administration's joint development guidance to offer incentives to developers to develop the sites in a manner consistent with the strategy.

In 2007, the City of Portland initiated a zoning project to review the regulatory barriers identified in the strategy and to propose up-zoning in station areas.

Transit investments

MAX Red Line

Efficiently carrying passengers and employees to and from the region's major airport is high

on the list of most cities. Despite frequent bus service to and from downtown Portland, transit traditionally carried a limited number of trips to Portland International Airport (PDX). With the goal of increasing transit trips, light rail to PDX had been part of regional and airport master planning since the mid-1980s.

The airport has seen steady growth for many decades, becoming the nation's fastest growing airport in the late-1990s. Air passenger traffic at PDX more than doubled from 6 million in 1990 to over 14 million in 2008, with 2020 projections for 22 million trips.

A unique public/private partnership

In 1997 Bechtel Enterprises approached the region with a proposal to design and build a MAX extension to the airport under an innovative public/private partnership. Bechtel would contribute about a quarter of the project's funding and contract to build the light rail extension. In return, Bechtel would receive development rights to a 120-acre mixed-use commercial site near the entrance to the airport, owned by the Port of Portland.

This cost-sharing arrangement meant no federal appropriations, state general funds or additional property taxes were needed to build the line. The project cost \$125 million, with \$45.5 million coming from TriMet, \$28.3 million from the Port of Portland, \$28.2 million from Bechtel and \$23.8 million from the City of Portland.

Fast-tracking

Resolving issues among three local public agencies entering into a unique agreement with a private partner required open communication, a significant amount of due diligence and a number of interlocking agreements to protect the public's investment. In all, the agencies and Bechtel executed 85 agreements, with nearly 20 formal approval steps by various elected and appointed bodies ranging from local jurisdictions to the Federal Aviation Administration. The project established and maintained an accelerated decision-making model, completing all approvals within nine months.

Construction started in 1999 on the first design-build light rail transit project on the West Coast. From initial proposal to opening day, the 5.5-mile project was complete in just five years. The line opened on September 10, 2001. Ridership on the MAX Red Line topped 3 million in the first 10

months of operation. Annual ridership surpassed and has remained over 8 million since fiscal year 2007.

Airport terminal

To maximize ridership, the airport line had to offer the highest level of convenience for passengers. Locating a suitable airport station site was difficult. At the time, PDX was in the midst of a multi-year expansion that would likely disrupt any route chosen for light rail into the terminal. Earlier plans had sought to postpone light rail construction until expansion was complete, many years in the future—or to end the line behind the parking structure, away from expansion activity, but inconveniently located for transit riders. The station was finally sited at the south entry to the terminal, less than 200 feet from baggage claim and offering one of the most convenient airport stations anywhere.

The trackway approaching this site was designated "temporary," to be relocated if necessary for future terminal expansion. This temporary segment was built as single track to fit into the available right-of-way. It can enter the two-track terminal station without the need for crossover tracks. The terminal platform is wedge-shaped, with its widest end at the terminal doors and narrowing to fit the geometry of the track switch at the end of the platform.

Station area development

Bechtel's effort to develop the 120-parcel near the airport and served by two Red Line stations did not occur as planned. The cooling economy brought on by the September 11, 2001, terrorist attack delayed the financing of an intensely developed jobs and hospitality center as originally proposed. Bechtel ultimately sold its interest in the property to national developer Trammell Crow, which repositioned the development as a retail center called Cascade Station. Ikea, several other retailers and hotels have since opened on the site.

MAX Yellow Line

Regional transportation plans long identified the need for north-south high-capacity transit. The region made two attempts at ballot measures to increase property taxes to support MAX construction. A 1998 vote would have extended MAX from Vancouver, Washington, through North/Northeast Portland to downtown and then south to Oregon City, Oregon. That vote passed in Oregon but failed in Clark County, Washington. A

second attempt for an alignment in Oregon passed in the City of Portland, but failed in suburban Washington and Clackamas counties. MAX Yellow Line, a 5.8-mile extension of light rail from downtown to North Portland, responded to these votes in the following ways:

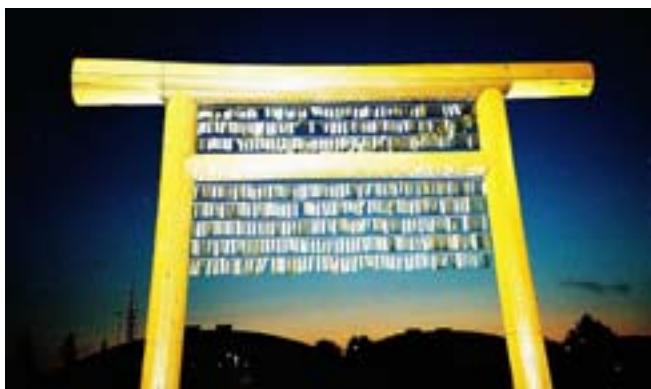
- Lower-cost project
- No increase in property taxes
- No displacement of businesses or homes
- Alignment better serves neighborhoods

Construction of this northerly addition to the MAX system opened four months ahead of schedule,



on May 1, 2004, and millions under budget. MAX Yellow Line runs through a diverse landscape, primarily in the existing right of way of North Interstate Avenue.

The Rose Garden Arena and Memorial Coliseum anchor the segment. Heading north, it runs through a historic industrial district. The alignment then enters the Overlook neighborhood, where Kaiser Permanente has a major facility with more than 800 employees. Continuing north, redevelopment is taking shape among the motels, gas stations and



other businesses that served travelers in the 1950s when Interstate Avenue was the primary route between Portland and Vancouver, Washington. The segment is anchored at the north end by the Expo Center.

Partners and funding

Interstate MAX Yellow Line was a TriMet project in partnership with the City of Portland, the Portland Development Commission, Metro, the Federal Transit Administration (FTA) and the communities of North and Northeast Portland. The FTA provided \$257.5 million for the project. Local funds included \$37.5 million in regional transportation funds, \$30 million from the City of Portland raised through the formation of a new urban renewal (tax increment) district, and \$25 million from TriMet.

Best practices

In addition to being ahead of schedule and below budget, Interstate MAX Yellow Line established new benchmarks in the areas of contracting with disadvantaged business enterprises, supporting businesses impacted by construction and incorporating environmental restoration.

The project received the 2005 Arbor Day Foundation Lady Bird Johnson Award for exemplary leadership in roadside beautification. The project tripled the number of trees along Interstate Avenue.

Business support program

Many of the businesses along Interstate Avenue are small, owner-operated enterprises. To offset possible construction impacts, the Interstate MAX Business Support Program created a marketing and advertising campaign to draw in business. The broad-based campaign included advertisements, direct mail, promotions, financial assistance, technical workshops for the businesses, and a "Lunch Bus" that brought 14,000 people to Interstate restaurants—resulting in nearly \$12,000 in income to these businesses. The Business Support Program assisted more than 100 businesses during MAX Yellow Line construction, and more than 50 new businesses had opened on Interstate Avenue as of December 2004.

Joint development program

TriMet received FTA approval to use some of the project savings to increase station area development activities; \$4 million was available for planning and site acquisition. After TriMet completed additional environmental analyses of potential development impacts, it proceeded with acquisition of two properties to be offered for transit-oriented redevelopment. The first site, which was the long-time location of the Crown Motel, was offered for development in March 2006. Redevelopment of the site to provide 54

units of affordable housing, with ground-floor retail, was completed in February 2009. TriMet is waiting for the economy to improve before offering the second site for development.

Columbia River Crossing

The region still intends to extend the Yellow Line north to Vancouver, Washington. The Columbia River Crossing is a bridge, transit and highway improvement project. The project is charged with enhancing accessibility, reducing congestion and improving safety problems on a five-mile segment of Interstate 5. The project area stretches from State Route 500 in Vancouver, Washington, to approximately Columbia Boulevard in Portland, Oregon, including the Interstate Bridge across the Columbia River.

The Columbia River Crossing is a joint project of the Washington State Department of Transportation and the Oregon Department of Transportation. Local project partners are Southwest Washington Regional Transportation Council, Metro Regional Government, C-TRAN, City of Vancouver, City of Portland and TriMet.

Issues

I-5 between Vancouver and Portland suffers six hours of traffic congestion each weekday. If no improvements are made, congestion will increase to more than 16 hours each weekday by 2030. In addition to congestion issues, this section of I-5 has accident rates two to three times higher than similar highways in Oregon and Washington. Problems include these elements:

- Bus travel times are increasingly impacted by congestion, bridge lifts and crashes on I-5
- Merging and weaving problems lead to sideswipe crashes
- Short on- and off-ramps at interchanges contribute to a high accident rate
- Poor sight distance approaching the bridge leads to rear-end crashes
- The path on the Interstate Bridge is dangerously narrow, and local street connections are confusing and circuitous

Transit

In addition to replacing the I-5 freeway bridge that connects Oregon and Washington, the project includes plans for a 2.9-mile extension of the MAX Yellow Line from North Portland across the river to Vancouver. By 2030, there will be an estimated 18,700 daily trips light rail trips across the river, with 6 million boardings annually.

The extension would include a station on Portland's Hayden Island, which has residential and retail districts, and four stations and three Park and Rides in Vancouver.

Funding and timeline

The project is applying for \$850 million in Federal Transit Administration New Starts funding. Operation and maintenance of the extension is proposed to be funded through TriMet and C-TRAN, the transit agency for Clark County, where Vancouver is located.

The Final Environmental Impact Statement for the light rail extension is expected to be published in 2011, with the earliest construction beginning in 2013 and service commencing in 2019.

Transit-Oriented Development

North and Northeast Portland have been fertile ground for infill redevelopment. Much of it has been two- or four-unit projects where a local developer replaced a modest or dilapidated house on a double lot with new development. Some projects are larger in scale and many are mixed-use. The largest projects are the work of the Housing Authority of Portland. Changing demographics, city planning efforts and increased transit service have come together to create an attractive urban lifestyle. The projects described below capture some of the variety of new transit oriented development in this part of the region.

Patton Park Apartments

When the Interstate MAX (Yellow Line) light rail project was anticipated to be completed under budget (and ahead of schedule), TriMet sought FTA approval to move \$4 million from contingency into the project's transit-oriented development budget.

Working with local partners, TriMet identified two key parcels for purchase. The Crown Motel was identified in the Interstate MAX Station Area Revitalization Strategy as a site where the neighborhood would welcome change. Based on TriMet's analysis of the impacts of future development, FTA granted a documented categorical exclusion from NEPA to allow the purchase and later approved the sales agreement with a willing seller.

Address gentrification

The MAX Yellow Line serves neighborhoods that historically had lower incomes and a larger percentage of minority households than the region as a whole. While these were important drivers for investing in high-quality transit service, some residents feared the public investment would bring gentrification. Public agencies were challenged to develop policies and programs to prevent displacement. TriMet chose to require permanently affordable housing as part of the redevelopment of the Crown Motel site.

Prior to opening, there was a waiting list of more than 400 households for the building. More than two-thirds of the first occupants of Patton Park Apartments were minorities and more than half moved to the building from another location in North/Northeast Portland.

Solicitation innovation

Traditional "request for proposals" are expensive for the respondents and sometimes cause a project to be selected because of attractive renderings versus sound development fundamentals. TriMet issued a "request for qualifications" and evaluated proposals based on the respondent's understanding of the agency's goals for transit-oriented development. Ten proposals were received. The robust response reflected both the solicitation approach and the desirability of the site. REACH Community Development was the winning development team.

The selection of a developer was accomplished in just more than three months. It took another 18 months for REACH to secure financing for the project. Project funds include low income housing tax credits, a grant of \$4 million from PDC and a small grant from Metro. FTA approved discounting the sales price of the land because ridership from the project would generate fares over time that would exceed the value of the write-down. Project-base Section 8 helped finance the three-bedroom units. The project started construction in spring 2008 and opened for occupancy in February 2009.

Location and transit access

5272 N Interstate Avenue
Killingsworth MAX Station
Bus line 72

Project statistics

Site area: 24,000 sq. ft.

Project program:

54 apartments
4,600 sq. ft. commercial
38 parking spaces

Parking ratio: 0.7 spaces/unit

Completion date: 2009

Daybreak Cohousing

The Pacific Northwest is home to a growing number of cohousing communities, each trying to foster community in the maelstrom that is contemporary North American life. Originally conceived in Denmark in the mid-1960s, the concept of cohousing is the intention to recreate the sense of community among residents that is typically associated with the development and building patterns seen in a traditional village. Sustainability in a cohousing community is a holistic approach to growing both the individual

and the community in their relationship to each other, as well as their environment. While residents own a complete private home, the shared space of the Common House is the focus of the community. The outdoor open space that connects the private homes to the Common House provides informal opportunities for interaction and community involvement.



Daybreak Cohousing is comprised of 30 individually owned housing units which share a 7,000 square foot common house as well as a landscaped courtyard designed to preserve a 50 year old maple tree. A variety of unit types, sizes and prices are designed to bring together people of different ages and household types. Residents pay co-housing membership dues and can participate in common meals, gardening and other community events.

Location and transit access

2525 N Killingsworth Street
Bus lines 72 and 35

Project statistics

Site area: 32,670 sq. ft.

Project program:

30 ownership units
7,000 sq ft common house
60 indoor parking spaces
0 auto parking spaces
Completion date: 2009

New Columbia

Columbia Villa was built in North Portland in 1942 as housing for World War II shipyard workers. After the war, it became the largest public housing site in the state of Oregon, with 462 housing units in barracks-style buildings scattered over 82 acres. Over the years, the aging buildings and inadequate infrastructure fell woefully short of modern building standards in virtually all areas. In addition, Columbia Villa's 1,300 low-income residents were

physically, socially and economically isolated from the community.

In 1993, the U.S. Department of Housing and Urban Development (HUD) created the HOPE VI program, which offered grants to reconstruct aging public housing sites into new, mixed-income communities. HAP applied for and was awarded a \$35 million grant in 2001, which was supplemented with funding from multiple other sources into a project total of \$151 million. In addition, the agency led the development of the Community Campus at New Columbia, a \$20.2 million project that is anchored by a new public elementary school (Rosa Parks School), and Boys & Girls Club and includes a new wing for the City-owned recreation center (University Park Community Center).

The vision for New Columbia was to create a vibrant new neighborhood with a mix of housing types affordable to people at all income levels. New Columbia includes the following features:

- 854 housing units, including public housing, affordable rentals, senior housing, and both market rate and affordable homes for sale.
- A mix of residents, representing a variety of cultures, age groups, and income levels.
- A community-friendly design, with front porches, parks and public spaces.
- A new street grid that provides easy circulation within New Columbia and connects the community to the rest of the Portsmouth neighborhood.
- A Main Street that offers a variety of recreational, cultural and educational opportunities both for New Columbia residents and the surrounding neighborhood.



TriMet worked closely with project designers to ensure bus service and stops were enhanced in the new design.

The U.S. Environmental Protection Agency recognized New Columbia for overall excellence in smart growth with a Smart Growth Achievement Award in 2007. Specifically, the award highlighted the community design process that resulted in a healthy, vibrant and diverse community with environmental leadership demonstrated by LEED certification, innovative stormwater management and a design that ensures pedestrian and bicycle connections to mass transit.

Location and transit access

4605 N Trenton Street
Bus Line 4

Project statistics

Site area: 82 acres
Project program:
232 ownership units
297 public housing units
186 affordable rental units
73 project-based Section 8 units
66 elderly rental units
Worksource Center
Public elementary school
Boys & Girls Club
Completion date: 2007

Matthew Frank Condominiums

St. Johns, a neighborhood at the northern tip of North Portland, was founded and developed as a distinct city. The St. John's Bridge, crossing the Willamette River, is arguably the city's most iconic bridge. Now a north Portland neighborhood, St John's is characterized by a small town feel, proximity to industrial jobs and a reputation for independence.

The Matthew Frank Condominiums is a 1.5-acre redevelopment on the site of a former Safeway store and parking lot. The project provides 111 units of new housing to the central business district of St Johns. The design reinforces local themes in the area through materials and scale, to help integrate the medium density project into an established neighborhood.

The buildings surround a central access court containing a large landscaped green space, which buffers views through the site. Careful window orientation further maximizes privacy, emphasizing views into the green space and out to the St Johns Bridge and Forest Park beyond. By creating density near shopping and transit, these affordable market rate dwellings have helped revitalize an underutilized business district.

Location and transit access

8002 N Burlington Ave
Bus lines 4 and 75

Project statistics

Site area: 1.5 acres
Project program:
111 condominiums
Completion date: 2007

Tupelo Alley

Tupelo Alley is an urban infill, mixed-use community providing 188 apartment homes and approximately 10,000 square feet of retail space on Mississippi Avenue, one of the city's most dramatically revitalized commercial streets.

Tupelo Alley was constructed in the summer of 2009 at 3850 N. Mississippi Avenue. Tupelo Alley consists of three controlled-access residential buildings—one is a mid-rise and the others are three stories each. A basement parking structure provides 160 spaces for residents. The homes at Tupelo Alley average 770 square feet with one or two bedrooms and baths. Sustainable practices include Energy Star appliances, low-emitting materials and improve inside air quality and efficiencies that conserve water and energy. A courtyard expands the pedestrian realm on Mississippi.

The project was purchased from developer Trammel Crow Residential by Behring Harvard Multifamily REIT I, Inc. in 2010. The buyer's press release noted the appeal of a transit supportive location: "We're pleased to acquire this high-quality, newly constructed community in a vibrant live/work/play urban neighborhood," said Mark T. Alfieri, Chief Operating Officer of Behringer Harvard Multifamily REIT I, Inc. "With its transit-oriented, centralized location and its commitment to sustainability, Tupelo Alley is a popular choice for young professionals. We believe it offers attractive upside potential."

Location and transit access

3850 N Mississippi Ave
Bus line 4

Project statistics

Site area: 62,550 sq. ft.
Project program:
188 apartments
10,100 sq. ft. commercial
160 basement parking spaces
Completion date: 2009

Humboldt Gardens

Humboldt Gardens is Portland's second redevelopment anchored by a federal HOPE VI grant. In 2005, HAP was awarded \$16.9 million by the U.S. Department of Housing and Urban Development for a \$40 million project to replace the aging Iris Court public housing apartment cluster. Iris Court was a poor living environment for all of its residents. There were no apartments accessible to people with disabilities, poor outdoor play areas, crumbling infrastructure, and a site lay-out that created pockets of indefensible space. The site also suffered from social distress, with a large number of households struggling to secure a stronger economic footing as they raised their families.

A design for inclusion, diversity, and connection

Iris Court residents and community members joined HAP and its project partners to help design Humboldt Gardens—a mix of 100 units of public housing and 30 units of moderate income affordable housing. A variety of housing options include accessible units, loft-style studios, and two- and three-story buildings that feature a combination of flats and townhomes with bedroom configurations for families of all sizes. Front porches, windows, backyards, sidewalks and a central pocket park offer private spaces but also help residents stay in touch with their neighbors and visitors. A striking mixed-use building houses an Opportunity Center with meeting space, computers, and internet access; a Head Start Center; a community policing contact office; retail space; and a property management office. A bus stop provides transit service at the front door.

A culture built around opportunity

Humboldt Gardens is a pilot location for HAP's Opportunity Housing Initiative, a support program that asks participants to set life goals and move beyond housing assistance to economic self-sufficiency. Nearly 60 families are participating in the five-year program. As residents increase their income, the additional money that they pay in rent is set aside in a savings account that they can access at graduation. The new community includes 20 apartments for families in the Bridges to Housing program. This regional effort helps families that have been homeless move into housing and provides them with support services to help stabilize their lives.

Location and transit access

N Vancouver Ave & Alberta Street, Portland, OR 97217
Bus line 44

Project statistics

Site area: 4 acres
Project program:
130 apartments
Head Start
Community Policing Office
Completion date: 2008

Resources

Transit

Interstate MAX

trimet.org/about/history/yellowline.htm

Columbia River Crossing

columbiarivercrossing.org

Planning

Albina Community Plan

tinyurl.com/albinaplan

Kenton Downtown Plan

tinyurl.com/kentonplan

Interstate Corridor Urban Renewal Area

pdc.us/ura/interstate

Transit-oriented development

Patton Park Apartments

tinyurl.com/pattonparkapts

DayBreak Cohousing

daybreakcohousing.org

New Columbia

newcolumbia.org

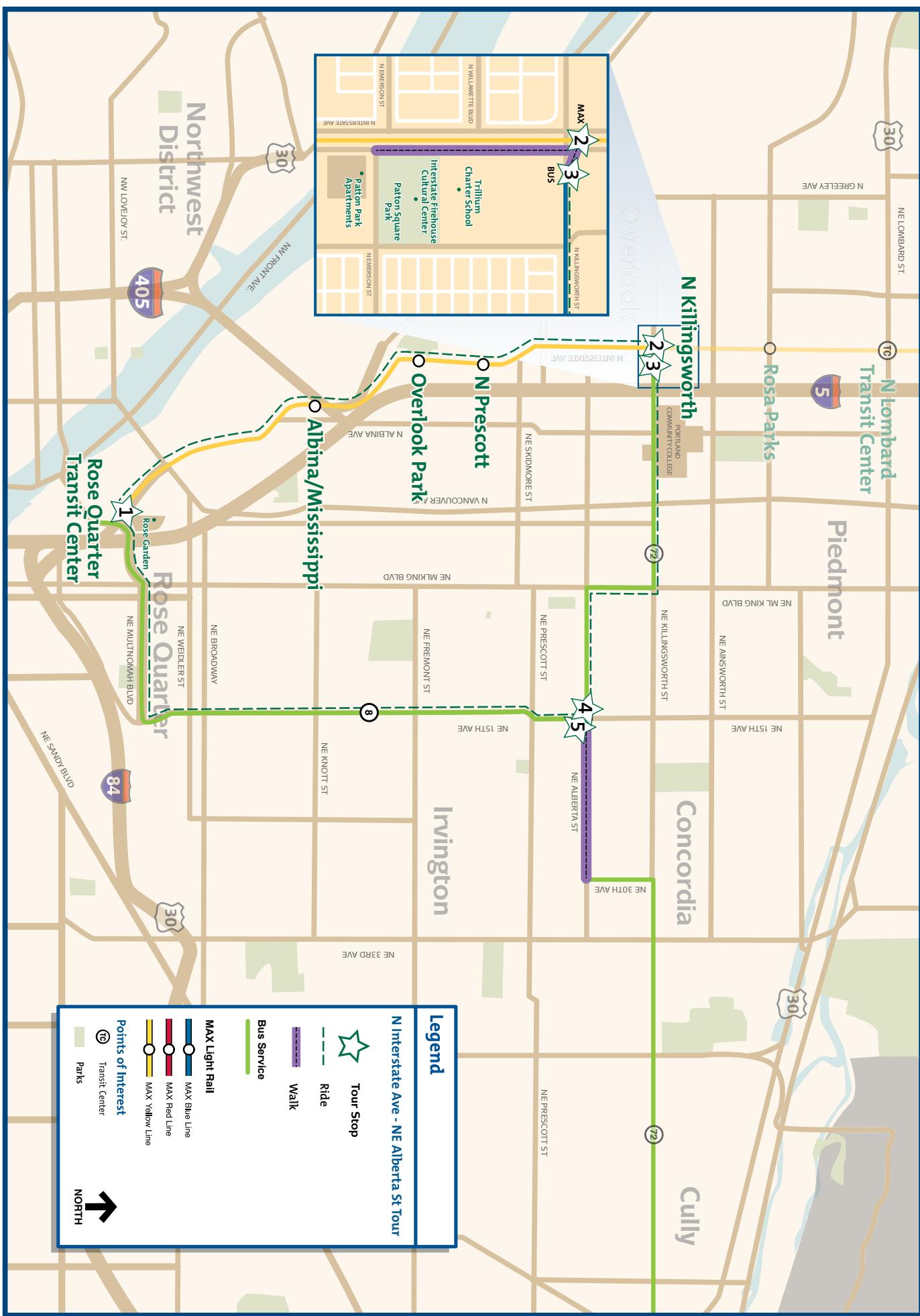
Matthew Frank Condominiums

matthewfrank.org

Tupelo Alley

tupeloolley.com

Interstate TOD/Alberta Street Tour



Interstate TOD/Alberta Street Tour

This tour will take you through a few of North and Northeast Portland's most livable neighborhoods and demonstrate the interconnectivity of TriMet's bus and light rail system. The entire tour should take two to three hours.

1. Start your tour at the MAX Yellow Line Station at Rose Quarter. This station serves the Rose Garden arena, the largest multi-purpose event facility in Oregon, seating 14,000 and serving as home to the Portland Trail Blazer basketball team. Three light rail lines and eight bus lines at the Rose Quarter Transit Center are critical to access—north of the arena, there are only 1,000 structured parking spaces occupying less than 2,500 square feet dedicated for Rose Garden use. Opened on October 12, 1995, the arena cost \$262 million to build; construction was financed with funds obtained by a variety of sources, including a modest contribution from the City of Portland. The bulk of funding came from Microsoft founder and Trail Blazer owner Paul Allen and \$155 million in bonds issued by a consortium of mutual funds and insurance companies. These bonds became the subject of an acrimonious 2004 bankruptcy in which the Oregon Arena Corporation, the holding company which owned the arena at the time, forfeited title to the Rose Garden in lieu of repaying the bonds per the payment term. Allen later repurchased the arena from the creditors in 2007.

Board a north-bound MAX Yellow Line train to Expo Center. As you travel north, the first stop is Mississippi/Albina Station. Southeast of the station is the Gotham Building, which previously was a mattress factory and was renovated to house local businesses and a restaurant in anticipation of light rail. North of the station is Widmer Brothers Brewing, one of Portland's many local microbreweries. A variety of restaurants and bars line North Russell Street. West of the station, the Albina Industrial District continues to provide a home for the Union Pacific Railroad yards and businesses that rely on rail service.

Continuing north to the neighborhoods along Interstate Avenue, the Yellow Line serves long-established, diverse neighborhoods with a strong sense of community. Station placement, design and art elements reflect the adjacent communities. A design priority was to transform Interstate Avenue's four lane roadway into a pedestrian-

friendly, multi-modal urban street. The project also enhanced the streetscape by tripling the number of trees along Interstate Avenue. Since the project is constructed at grade within the existing street right-of-way, it integrates safety, lighting and aesthetics into the alignment design.

2. Get off at the Killingsworth Street Station. At the crosswalk, walk east across Interstate Avenue to the open field directly east of the station. Since the line's opening in 2004, the Portland Development Commission (PDC) has worked with private developers and the community to create a vibrant mixed-use development at this location. However, market demand and available financing were not in sync with community aspirations for the site. A mixed-use project is slated to break ground in late 2010.

Walk south across North Killingsworth past the credit union building on the corner. The Trillium Charter School, which opened at this location in part because of its proximity to MAX, is reusing a former industrial building. The school serves kindergarten through high school, and is developing a roof top garden that will be incorporated into the school's curriculum.

Directly south of Trillium is the Interstate Cultural Firehouse and Patton Square Park. The cultural center provides a platform for emerging and experienced artists working in the visual, literary and performing arts and has deep roots in North and Northeast Portland. The adjacent park was improved with new equipment, paths and landscaping as part of a coordinated effort by the PDC to program urban renewal funds not only for light rail and affordable housing, but also for amenities like parks and storefront improvements to enhance livability. Between 2006 and 2010, PDC's Community Livability Grant Program awarded more than \$1.1 million to 24 projects.

Across the street from the park are the Patton Park Apartments, which formerly was home to a dilapidated 19-room motel. When the Interstate MAX project was anticipated to be completed under budget, TriMet received FTA approval to move \$4 million from contingency into the project's transit-oriented development budget. The Crown Motel was identified in an earlier planning process as a site where the neighborhood would welcome change and TriMet was able to negotiate

the purchase with a willing seller. TriMet chose to require the developer to provide permanent affordable housing as part of the redevelopment project as a way to address concerns about gentrification and to ensure low-income households continue to have convenient access to transit. Today, Patton Park provides 54 units of one, two and three-bedroom apartments—when it opened it had a waiting list of more than 400 people. Ground floor commercial space provides a variety of services including bilingual day care and a community land trust.

3. Board Line 72-Killingsworth/NE 82nd Ave.

Walk back to Killingsworth and board the eastbound Line 72 bus stop. The Line 72-Killingsworth/82nd Ave is a workhorse within TriMet's bus system, carrying the second highest number of riders of any line. It connects to all four MAX lines and provides service to the industrial hub at Swan Island to the north and Clackamas Town Center to the south and all points in between.

Killingsworth Street has benefitted from recent streetscape improvements, which were also part of the broader urban renewal plan. Wider sidewalks and enhanced lighting improve the pedestrian experience and extended curbs make it easier to board the bus. More and more small businesses are opening in this corridor and institutional anchor Portland Community College (PCC) Cascade Campus, located at Killingsworth and Albina, is also growing.

PCC opened in 1971; however, approximately \$60 million in capital investments have changed the face of the campus in recent years, by expanding its footprint and adding a humanities building that is home to professional music, multimedia and a state-of-the-art auditorium. The buildings are oriented toward the street, helping to activate the area.

Just east of PCC, on the south side of Killingsworth is McMenamins Chapel Pub. Renowned in Portland for renovating historic building for brewpubs and hotels, Mike and Brian McMenamin renovated the historic Little Chapel of the Chimes funeral home (ca. 1932). The main floor houses a family-friendly neighborhood pub with seating for 100 people, along with an outdoor patio, while the second floor serves as McMenamins' company headquarters.

Developer Roslyn Hill

Developer Roslyn Hill is sometimes referred to as the “The Queen of Alberta” for her contribution to the renaissance of this Northeast Portland street.

Hill grew up near Alberta Street when it was a thriving district. Returning to Portland in 1990, she was dismayed to see that despite renovation in downtown, much of Alberta stood derelict.

An interior and landscape designer, Hill bought a building in tax foreclosure at Alberta and 14th Place in 1993, rehabilitated it and opened Roslyn's Garden Coffee House. She went on to buy and fix up a dozen buildings, blending wood and corrugated metal and lots of plants to create a welcoming environment. She insists on community-minded tenants who rely on foot traffic and help build the street's lively nature. Among her tenants are The Tin Shed, Mabel & Zora's, Fuel, the Alberta Street Coop and Everyday Wine.

As the Line 72 turns right on Martin Luther King Jr. Blvd (MLK) you will see old and new development. On the east side is the Walnut Park development, formerly a Fred Meyer grocery store. Redevelopment of the site to incorporate a police precinct was a 1980's era response to concerns about blight and crime. Further south on the west side of the street is Vanport Square, a new development resulting from a public-private partnership that features 16 retail spaces for lease or purchase.

The bus will head east on Alberta Street.

4. Deboard at NE 15th Avenue. You have officially reached ground zero of the Alberta Arts District. Many homes and businesses express a unique and artistic flair that suits the neighborhood nickname. Alberta folks seem to prize their individuality, and you'll find a demographic mix of locals and visitors, particularly on Last Thursday every month, when the street is closed to cars to host a fair of artists and food. Even as it has thrived, the street remains remarkably free of “chain” and nationally known establishments.

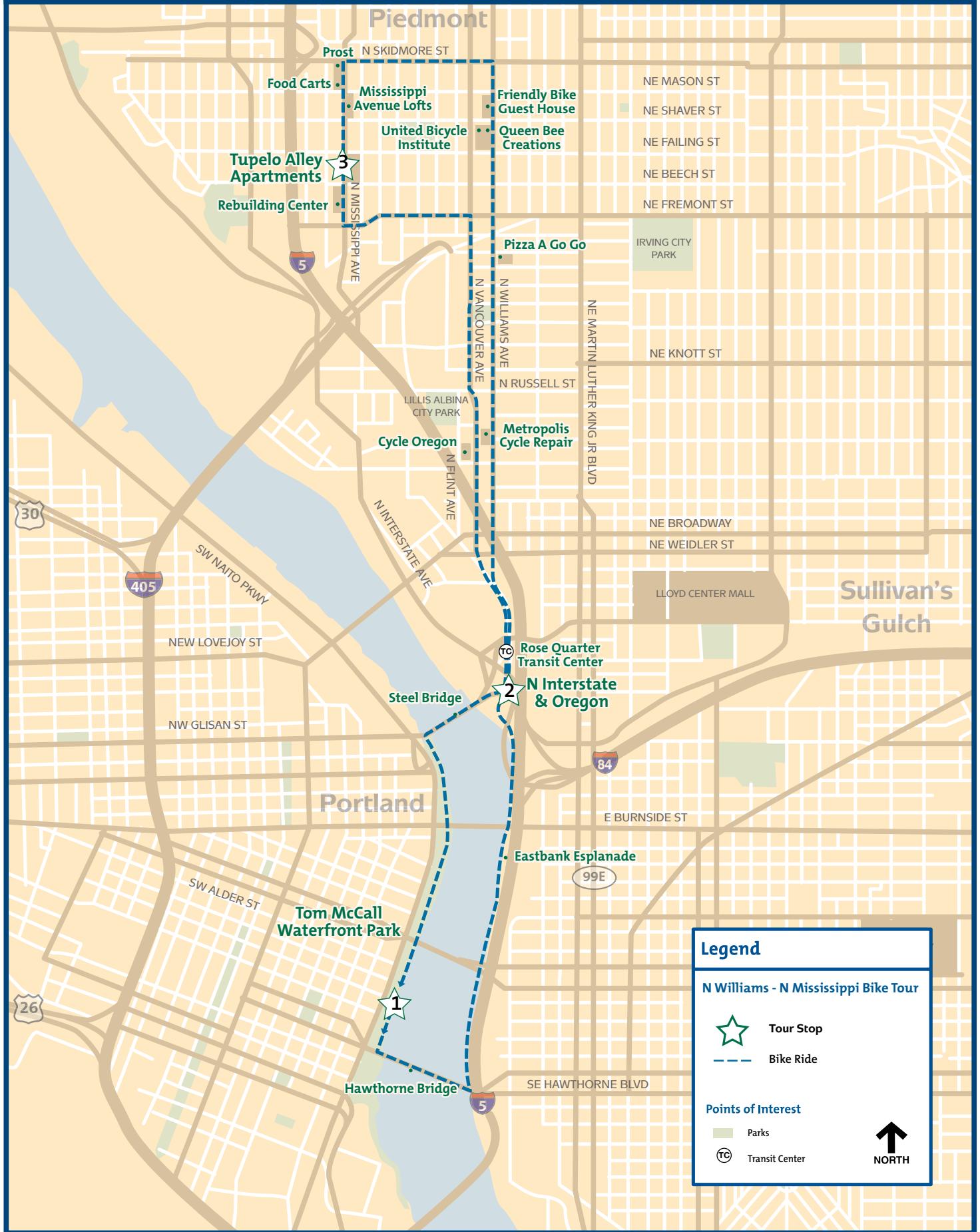
The dark green building on southwest corner is the home to the Sabin Community Development Corporation, which was founded in 1991 to address rapidly rising housing costs that were driving out many of their longtime neighbors and eroding the diversity of this culturally rich, mixed-income neighborhood. These concerns remain some 20 years later.

The properties on the south side of Alberta, between 12th and 14th were among the first to be redeveloped by Alberta “pioneer” Roslyn Hill. Alberta is best appreciated on foot. You will find a variety of businesses between NE 11th and NE 30th avenues located in restored commercial buildings and new mixed-use infill development. On your walk, note the city’s investment in wide sidewalks, bus platforms, bike corrals and public art. Alberta is without question one of the most transit, pedestrian and bike friendly areas in the city.

5. Board Line 8-NE Jackson park/NE 15th Ave.

When you are done enjoying Alberta, board Line 8-Jackson Park/NE 15th Ave at the northwest corner of NE Alberta and 15th. It is about a 15 minute bus ride back to the Rose Quarter, where the tour concludes.

Williams/Mississippi Bike Tour



Williams/Mississippi Bike Tour

The Williams/Mississippi Portland bike tour highlights innovative high-volume bicycle traffic facilities and the energetic walkable and bikeable development on Williams and Mississippi avenues. The bike tour begins at Salmon Springs at Tom McCall Waterfront Park, where there are bike rentals from Kerr Bikes (kerrbikes.org). Other downtown rental shops include: Waterfront Bikes (waterfrontbikes.com), Portland Bike Tours, (portlandbicycletours.com) and Pedal Bike Tours (pedalbiketours.com).

1. This tour starts at Salmon Springs in Tom McCall Waterfront Park. In 1974 the park replaced Harbor Drive, a segment of US 99W dating from the 1940s, making Portland the first major city in the United States to permanently remove an existing freeway.

From Salmon Springs, ride to the south side of the Hawthorne Bridge via the waterfront path and take the eastbound onramp to the Hawthorne Bridge. Ride east over the Hawthorne Bridge. More than 7,000 bicycle trips are made across the bridge every weekday. The volume of bike traffic caused the city to stripe separate lanes for bikes and pedestrians and to direct bikes to travel one-way. Cross the bridge and take the first exit to on the right. Continue to the right underneath the bridge.

Riding north, enter the Vera Katz Eastbank Esplanade. The esplanade was conceived as part of the 1988 Central City Plan. Construction of the esplanade began in October 1998 and was completed in May 2001. The Esplanade was named after Vera Katz, Portland's Mayor from 1993 to 2005, to honor her vision and leadership for Portland - which included support for the construction of the esplanade. A bronze sculpture of the mayor by Bill Bane anchors the south end of the esplanade. Continue north onto a 1,200-foot long floating multi-use path, one of the largest of its kind in the United States.

Turn right on the path just before the Steel Bridge. A wayfinding sign just before the turn will alert you to the turn. Climb the ramp, ride over the bridge crossing the railroad tracks and follow the path to your left to reach the scramble signal at N. Interstate and Oregon.



FLICKR.COM/PHOTOS/GREGRAISMAN

2. Stop at N. Interstate and Oregon. The signal stops all auto traffic and allows cyclists to cross the intersection diagonally. The inductive signal loop is activated by placing your wheel directly on the bicycle marking on the sidewalk.

Cross the intersection diagonally northeast and follow the green bike lanes and bike box through the Rose Quarter Transit Center. Until October 2008 bikes were not permitted through the transit center, but the route required to circumnavigate the transit center was not consistent with city policy to promote cycling and also resulted in a fair number of cyclists seeking their own routes through the transit center. The painted lanes allow cyclists to safely pass among buses and MAX trains in one of the busiest hubs in the transit system.

Proceed north on Rose Quarter Terrace, which turns into Williams Avenue at the top of the hill. Notice the bike box at the intersection of N Williams and Weidler, which is integrated with a jughandle turn. This allows eastbound bicycle traffic on Weidler to queue in front of all lanes of traffic traveling north on Williams.

More than 6,000 daily bike trips are made on Williams and Vancouver avenues. Although a few bike-oriented businesses such as Metropolis Cycle Repair, the offices of Cycle Oregon and Pizza A Go Go are scattered on the southern end of the corridor, most of the commercial activity is centered about a mile north of Weidler, starting

at Beech Street. New commercial activity started with bars and restaurants in renovated buildings. Since then, more established bike-businesses such as Queen Bee Creations, United Bicycle Institute and Friendly Bike Guest House have opened along the avenue, some in new mixed-use developments.

Continue north on Williams Avenue to Skidmore Street. Turn left and ride west on Skidmore. Mississippi is about half a mile. Take a left onto Mississippi Avenue which is lined with cafes, restaurants, boutiques and vintage stores.

Each June Mississippi Avenue invites Portland to celebrate biking with Cirque du Cycling, which features an art bike parade, three mile family ride and criterion-style street races. The Avenue is closed to cars from Skidmore Street south to Fremont Street for the event. The avenue is also closed to cars one Saturday in July for the Mississippi Street Fair, the city's first carbon neutral street fair. Throughout the year, bike corrals, bus stops and pedestrian activity are testament to non-auto orientation of Mississippi Avenue.

On the southwest corner of Mississippi and Skidmore is the pub, Prost, which is connected to a food cart pod on Mississippi. The individual character of food carts, local ownership and outdoor seating are qualities that contribute to the unique character of Mississippi Avenue. Development has followed these commercial entrepreneurs. On the east side of Mississippi, the Mississippi Avenue Lofts were conceived and started construction as a condominium project. The project developers accused the contractor of siphoning payments off to other projects and a law suit ensued. The project was completed in 2009, but the original developers defaulted on their loans. The property is now being purchased by a local investment group which will offer the units as rentals.

Continue riding south on Mississippi.

3. Stop at The Tupelo Alley apartments, located on the east side of the street at Failing Street.

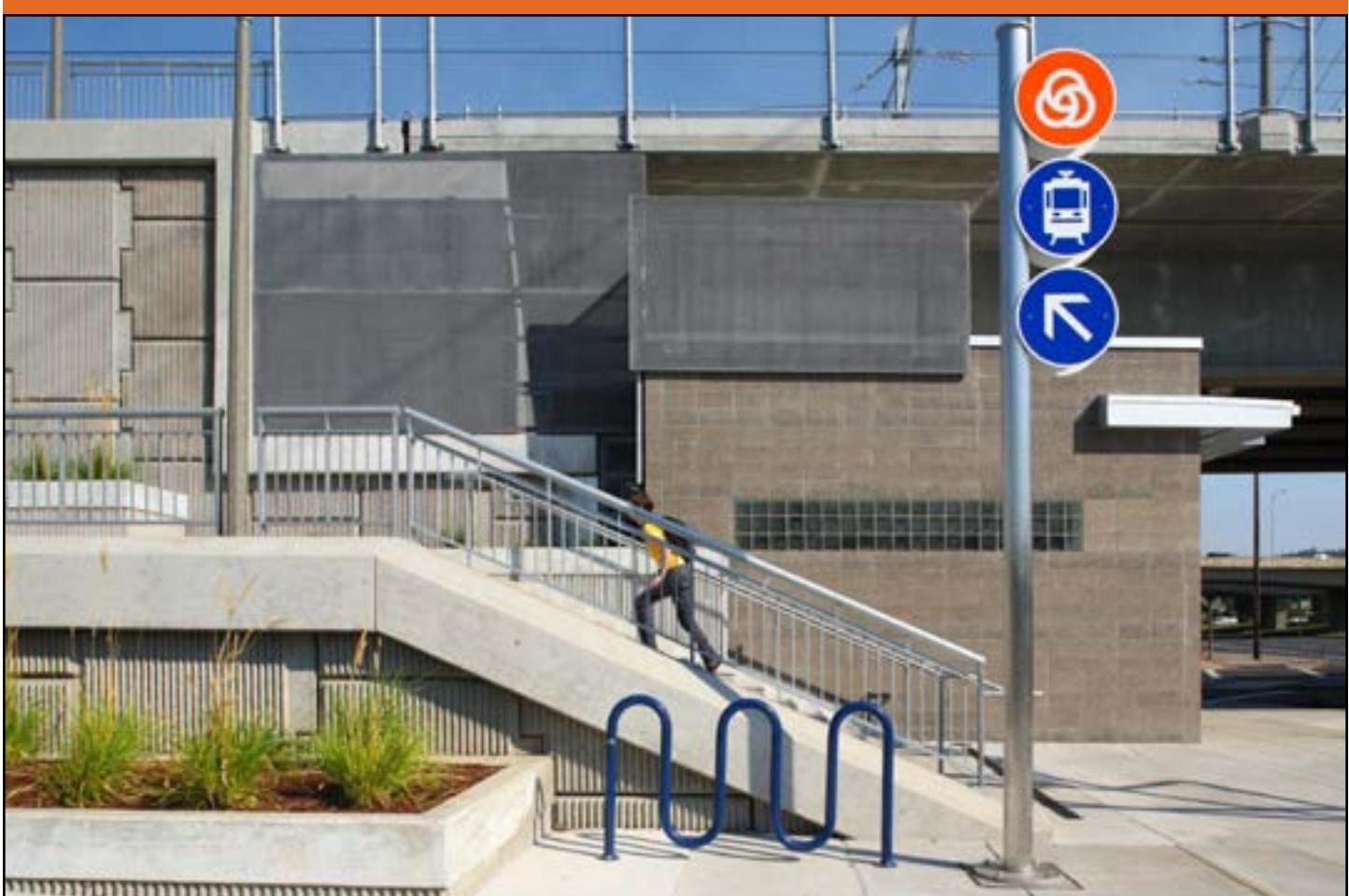
Tupelo Alley consists of three controlled-access residential buildings; one is a mid-rise and the others are three stories each. A basement parking structure provides 160 spaces for residents. The homes at Tupelo Alley average 770 square feet with one or two bedrooms and baths. Sustainable practices include Energy Star appliances, low-emitting materials and improve inside air quality and efficiencies that conserve water and energy. A courtyard expands the pedestrian realm on Mississippi

Continue riding south to the ReBuilding Center at 3625 N. Mississippi, which was an early anchor for the revitalization of the area and is still a vital business on the street. It draws people from around the region. The ReBuilding Center was founded by Our United Villages, a nonprofit that works from the roots to bring people together to share their ideas to inspire practices that strengthen community. The ReBuilding Center was conceived as a way to fund that mission. However, the ReBuilding Center has developed in its own right as a force for sustainable building practices, some of which are demonstrated in the construction of the Center itself.

Continue south and turn left on Fremont Street to head east back to the Williams and Vancouver couplet. Take a right to ride south on Vancouver Avenue. Continue south across the freeway overpass. Vancouver Avenue becomes Wheeler Avenue, veering east. After a signalized intersection allowing the two left lanes of traffic to enter a freeway onramp, Wheeler Avenue becomes Williams Avenue. Continue south by retracing your route back through Rose Quarter Transit Center. Continue straight to cross the Steel Bridge, which is at the bottom of the ramp to the Eastbank Esplanade. Follow the Waterfront multi-use path south back to Salmon Springs.

Your tour concludes Tom McCall Waterfront Park.

Southeast Portland and North Clackamas: The MAX Green Line Lents Town Center/Foster Rd MAX Station supports community revitalization plans.



Chapter Seven

Southeast Portland and North Clackamas

Defined by the MAX Green Line and Interstate 205 (I-205) to the east, the MAX Blue Line and Interstate 84 (I-84) to the north and another segment of I-205 to the south, this area of the region has a diverse pattern of development.

Inner Southeast Portland neighborhoods, developed in the early part of the last century, still reflect their streetcar orientation. Farther east, neighborhoods that developed after 1940 in unincorporated Multnomah and Clackamas counties are lower density, have less street connectivity and a greater automobile orientation. Milwaukie and Lake Oswego, cities that originally developed as independent industrial towns connected to Portland by the Willamette River, still have distinct town centers.

Seven of TriMet's Frequent Service bus lines serve the Southeast Portland–North Clackamas area. Several notable transit-oriented developments in the area are served by bus and by walkable, mixed-use neighborhoods. Some of these projects are now more than a decade old—demonstrating Portland's leadership in smart growth ahead of national trends. New light rail service and proposed extensions of light rail and street car will improve travel times, reliability and convenience for an area that already has an established base of transit riders.

Transit Investments

I-205 Light Rail



The MAX light rail system expanded into southeast Portland and Clackamas County in 2009 with the opening of the Green Line, which was phase one of the South Corridor Project (the Portland–Milwaukie Light Rail Project). Transit riders from Clackamas County now have a one-seat MAX ride

to downtown Portland or a quick transfer to the airport, east Portland and Gresham at Gateway.

The 6.5-mile Green Line extension travels between Gateway Transit Center and Clackamas Town Center along I-205, connecting to existing MAX Blue Line tracks from Gateway to downtown Portland along I-84. Most of the line is located in a transit way created when the northern portion of I-205 was completed in 1983. The line connects two regional centers (Gateway and Clackamas) and a town center (Lents) identified in the Metro 2040 Growth Concept as areas that are to intensify and diversify as the region grows. The I-205 segment of the Green Line added eight new stations and five Park & Ride lots providing more than 2,300 spaces to the system. Every station except Fuller Road is located adjacent to streets with bus service, providing a link to destinations both east and west.

The I-205/Portland Mall Light Rail Project, which created the Green Line, had a budget of \$575.7 million. Federal dollars paid 60 percent of the project cost. Local match was contributed by Metro, City of Portland, the Oregon Department of Transportation (ODOT) and TriMet.

Portland–Milwaukie Light Rail

The Portland–Milwaukie Light Rail Project, phase two of the South Corridor Project, calls for a second MAX light rail line into Clackamas County. This 7.3-mile extension will bring MAX from the southern end of downtown Portland through downtown Milwaukie, serving neighborhoods in SE Portland and north Clackamas County. The Portland–Milwaukie Light Rail line will have 10 stations, two of which will provide Park & Ride access. The project will also provide approximately 330 more bike parking spaces at light rail stations than required.

Metro forecasts one million new residents in the Portland region by 2030, and this corridor is expected to experience significant growth. With this influx of new residents, Metro also forecasts:

- Nearly 100,000 new jobs along the corridor by 2030, driven by growth at Oregon Health and Science University (OHSU), Portland State University (PSU) and in SE Portland and north Clackamas County
- Nearly 40,000 new jobs in downtown Portland within the next 25 years
- More than 9,900 residents and 13,600 jobs in South Waterfront by 2030

A new multi-use bridge

This light rail project also is viewed as an essential part of the infrastructure for development on either side of the Willamette River, in the South Waterfront District and redevelopment along the Central Eastside. The project will include a new multi-use bridge across the river, between OHSU's future South Waterfront campus on the west bank and OMSI on the east bank. The bridge will provide convenient access to downtown Portland and OHSU jobs and services from SE Portland and Milwaukie, carrying Portland-Milwaukie light rail and providing a new route for buses, bikes and pedestrians.

- Bus Lines 9, 17 and 19, which now use the Ross Island Bridge, will relieve congestion by using the new bridge.
- The bridge will be designed to accommodate Portland Streetcar in the future.
- The bridge will be designed to accommodate connections to future Willamette River greenways as development occurs.

Anchor for Innovation

Portland-Milwaukie Light Rail Project will serve as an anchor for the Innovation Quadrant, connecting PSU, OHSU, OMSI and Portland Community College's Workforce Training Center.

- Visitors to OMSI are expected to grow from 900,000 to 1.4 million annually.
- OHSU will have 19,800 jobs on Marquam Hill and 4,500 at the South Waterfront by 2030.
- PSU is the region's No. 1 transit destination with 27,000 students and 4,000 employees today. Forty percent of people traveling to PSU go by transit. Within 10 years, PSU expects 35,000 students and nearly 4,800 employees.

The project is estimated to cost approximately \$1.49 billion, with the federal share expected to be 50 percent of the total costs. Local resources include the cities of Portland and Milwaukie, Clackamas County, the Oregon Department of Transportation and state lottery bonds.

TriMet hopes to begin construction on the project in 2011 and open for service in 2015.

Lake Oswego to Portland

Metro and its partners are working to develop a transit project that meets future travel demand between Lake Oswego and Portland, supports local and regional land use plans, and garners public acceptance and community support. The

Lake Oswego to Portland Transit Project would connect downtown Portland and the emerging South Waterfront District with the city of Lake Oswego, a distance of approximately six miles. The South Waterfront District is forecast to have about 10,000 residents and 14,000 jobs by 2030. Lake Oswego is a successful town center and has substantial development capacity.

After a two-year alternatives analysis and parallel public process, the Project Steering Committee recommended that streetcar and enhanced bus alternatives be studied in an Environmental Impact Statement (EIS), but allowed for various design options to be narrowed as part of a refinement study. The refinement study has been completed, leading to a narrowed set of alignments recommended for the Draft Environmental Impact Statement (DEIS) to be released in fall 2010.

In 2035, the ridership for the streetcar alternative is forecast to be approximately 23,000 per weekday from Lake Oswego to Portland State University. This forecast is about 15,000 more streetcar riders than the no-build alternative; the enhanced bus alternative would be 13,000 riders per weekday from Lake Oswego to downtown Portland, about 6,000 more than no-build.

The streetcar is expected to reduce travel times between downtown Portland and Lake Oswego by eight to 11 minutes compared with no-build, while Enhanced Bus is expected to reduce travel times by two minutes compared to no-build.

The capital cost for the streetcar alternative is estimated between \$290 and \$350 million in 2010 dollars, depending on which design options are included. Cost includes the value of the Willamette Shoreline right of way, which is currently owned by local agencies and may be used as local match. Additional local match needed is estimated between \$57 to \$86 million, making this a particularly cost-effective project for the region. The enhanced bus capital cost is currently estimated at roughly \$35 million.

Land use plans

Outer Southeast Plan

The Outer Southeast Plan was the third area plan undertaken by the City of Portland Bureau of Planning to update the 1980 Comprehensive Plan. Covering 28 square miles, the Outer Southeast Plan process took three years and culminated with City Council adoption in March 1996.

Residents' attitudes toward growth and change were markedly different in Outer Southeast than they were in earlier plan areas, the Central City and Albina. Many folks chose Outer Southeast neighborhoods in order to lead a suburban or even rural lifestyle. Some residents arrived before the area was incorporated to provide sewers—an infrastructure investment that met with bitter opposition because residents had to bear some of the cost. Unpaved streets, lack of sidewalks, low connectivity and the poor quality of new multifamily housing diminished expectations that new development could positively impact the community. Still, some residents and property owners wanted the financial benefits that would come with increased development potential.

The Outer Southeast Plan sought to relieve stable residential areas from the pressure of growth by focusing increased density in the Gateway area, identified as a regional center in the Metro 2040 Plan and served by MAX, and Lents, a Metro 2040 Town Center. Overlay zones were used to require design review in these areas to ensure higher quality infill than in the past. Density was also increased along streets served by transit and in existing and future MAX station areas (anticipating the Green Line by 13 years). The Plan also created three new pedestrian districts.

Together, these changes were intended to allow for 6,000 new jobs and 14,000 new residents between when the plan was adopted in 1996 and the plan horizon of 2015.

The Portland Development Commission established Urban Renewal Areas (URAs) in Gateway and Lents to provide resources for public investments and to stimulate private investment necessary to achieve the vision for these areas. Citizen advisory committees help establish priorities for URA investments.

Clackamas Regional Center

Home to a large regional mall, the northern area of Clackamas County is designated as a Regional Center in the Metro 2040 Concept Plan. Clackamas County developed specific zoning and development standards to encourage the area to evolve from primarily low density, auto-oriented commercial uses and stand-alone multifamily housing to the compact, mixed-use environment desired in a Regional Center. The new code was adopted in 2001.

One tool implemented as part of the new Clackamas Code is a specific zoning designation, Planned Mixed Use. The zone requires a master plan for the long-term build out of the regional mall property as a condition of any substantial expansion. The master plan requires demonstrating how office and residential uses will be accommodated on the site over time. The county relaxed its traffic management and parking standards in the plan area to reflect that the area is a destination, not just an area to pass through, and to make it easier to intensify land uses.

The mall owners sought to expand just as the region was securing funding for the MAX Green Line. The master plan requirement coupled with good timing resulted in the mall owners providing two acres of the mall site for the Park & Ride garage and transit center. The first phase of expansion of the mall presents a more active exterior to the MAX station and provides a direct connection between the station and the mall. It also began to evolve parking lot drive aisles into a network of streets called for in the master plan and added some structured parking. Future development phases call for more than 380,000 square feet of office space and 600 housing units.

Downtown Milwaukie

The City of Milwaukie has undertaken a number of planning processes to develop and implement strategies for a more vital downtown. Milwaukie's traditional downtown is designated a Town Center in the Metro 2040 plan.

The City developed the Milwaukie Downtown and Riverfront Land Use Framework in 2000. It called for increasing residential development in the downtown area. The commercial center would have residential bookends with the potential for 550 new housing units. Minimum densities were established for these areas. New allowances for mixed use would allow 150 new residential units as part of mixed-use development in the core commercial blocks. Storefront zoning eliminated requirements for off-street parking.

In 2009, the City commissioned a Smart Development Code Assessment of its zoning code. The assessment recommended such measures as increasing flexibility on the type of uses allowed in the ground floor of a mixed-use building, imposing a minimum building height and providing a mechanism for early feedback from the city for projects requiring design review.

Transit-Oriented Development

Some of the earliest examples of modern transit-oriented development in the region occurred in Inner Southeast Portland, where there was already a context for mixed-use development—that of the early 20th century streetcar era. Positive response to these projects have helped inspire transit-oriented development (TOD) partnerships farther from downtown Portland. The projects described below are among those that contribute to this trend. Several other projects are described as part of the Hawthorne-Belmont transit tour.

City Life

A showcase of nine new homes built in an older South Chicago neighborhood inspired a Portland group to organize a similar innovative project in 1995 called City Life. City Life represented a coalition that included the American Institute of Architects (AIA)/Portland Chapter, City of Portland Planning Bureau, Home Builders Association of Metropolitan Portland, Livable Oregon, Inc., Portland General Electric, State of Oregon Housing and Community Services, and REACH Community Development, Inc.

The 18-unit owner-occupied project sits on a 40,000 square foot site in an established inner Portland residential neighborhood. The site is one-half block from two bus lines and within walking distance of neighborhood services including the elementary school across the street.

The project costs were \$91/square foot and \$1.92 million in total. Homes were sold to first-time homebuyers for \$60,000 to \$85,000 and at market rates for \$95,000 to \$125,000.

The AIA/Portland Chapter sponsored a design competition to demonstrate that architecturally designed, medium-density housing could be economically feasible. The competition provided the opportunity for the public to focus potential neighborhood concerns on design issues instead of density issues.

Financing and funding

Permanent financing included conventional mortgages and State of Oregon Mortgage Bonds; \$1 million in single-family loan funds was reserved for individual low-income buyers at a reduced rate. The city's Livable City Housing Council provided a \$193,000 bridge loan. Other

financial considerations included: city planning staff donation of in-kind services, city Bureau of Buildings fee waivers, a one percent discount on realtor fees, and an 11 percent discount on the land price by Portland General Electric.

Lessons learned

Early meetings with the city helped determine infrastructure requirements to incorporate into initial design and pro forma. Design competition with three separate housing types added to expenses, time delays and controversy.

City Life showed the Bureau of Planning how to revise the subdivision code so that future projects of this type could be approved more quickly.

Using electric instead of gas heating lowered costs as did scaling back some window design and building material features.

Location and transit access

SE 16th Avenue and Center Street, Portland
Bus lines 17 and 70

Project statistics

Site area: 40,000 sq. ft.
Total housing units: 18
Density: 19 units/acre
Parking: 1 space/unit
Unit types: 1 duplex, 6 rowhouses, 10 courtyard
Completion date: 1995

Belmont Dairy



The Belmont Dairy established a new standard for inner-city redevelopment in Portland. The first phase of the project reused part of a 70-year old former dairy building and added five stories of apartments over a parking podium. The project recycled major building elements and incorporated Portland General Electric's (PGE) Earth Smart™ building standards throughout the development.

process. When this phase was completed in 1996 it demonstrated that projects of this type enhance neighborhood vitality, provide housing people want, support transit usage and offer viable commercial space. The popular specialty grocery store and lively restaurant on the ground floor brought new life and much-needed services to the neighborhood.

The 30 rowhouses constructed in phase two are another model for high-quality, infill development. The project features pedestrian-oriented streetscapes characterized by front porches, bay windows and landscaped garden spaces, with garages tucked away in private alleys. The scale and design of the project respect the character of the old, single-family neighborhood that surrounds it. The rowhouse project was completed in 1999 and demonstrates that with thoughtful and inspired design, higher densities can be achieved without compromising livability.

In the words of one local banker, this model of urban redevelopment represents "land uses for the 21st century that promote the preservation of history, urban density, affordability and utilization of existing infrastructure that provides easy access to public transit, bicycle, and pedestrian corridors."

The project is located within an established residential neighborhood and fronts on a commercial neighborhood main street. After sitting vacant for five years and attracting squatters and graffiti, the Belmont Dairy is now the cornerstone and impetus for the revitalization of the Sunnyside Neighborhood and Belmont Business District.

The projects have been recognized regionally and nationally as a model infill and mixed-use development project, and have received various awards including the Governor's Livability Award, the BEST Innovation Award and an Ahwanee Award.

Financing

Phase 1: As the first major redevelopment of its type, the project encountered numerous barriers to traditional financing. The project also had added costs and perceived risks associated with preserving and refitting an existing building, providing structured parking and achieving higher densities. Land improvement costs for the project were \$400,000; construction costs were \$14 million. Project financing came from a variety of sources:

- Bank of America construction loan

- Network for Oregon Affordable Housing
- City of Portland Livable City Housing Council loan
- City of Portland Community Development Block Grant loan
- State Department of Environmental Quality CMAQ grant
- FNMA Tax Credit Investment
- City of Portland Multifamily Housing Tax Credit Bonds

Phase 2: This \$6 million project was financed by US Bank. More than 33% of the units were pre-sold.

Location and transit access

3340 SE Belmont Street, Portland
Bus line 15

Project statistics

Building area

- Phase 1:** 133,000 sq. ft.
Phase 2: 69,000 sq. ft.

Total housing units

- Phase 1:** 66 moderate rate rental apartments (section 42); 19 market rate rental lofts
Phase 2: 30 owner-occupied row houses

Parking

- Phase 1:** 102 spaces shared between residents and Zupan's customers
Phase 2: 32 spaces

Total commercial space

26,000 sq. ft.

Completion date

1996

Richmond Place

The Housing Authority of Portland purchased a site in the Richmond neighborhood to develop transitional housing for homeless families. The concept was to build the housing to fit into the neighborhood and to provide retail on SE Division. The site is zoned for mixed-use development.

The Housing Authority of Portland, in partnership with the City of Portland and the architect, had several meetings with the Richmond Neighborhood Association and received substantial input on the development of Richmond Place from the beginning.

The site was purchased in 1994 and the planning started. It took two years to secure financing. From May through June 1996, the contractor cleared the site and designed the office building. Construction

began in July 1996 and was completed in January 1997, on schedule.

The building is wood frame. The parking is located in the rear off an existing alley and the building is built up to the sidewalk for easy pedestrian access to the storefronts.

Financing

Total project costs were \$2.821 million. The project was financed almost entirely with debt-free grants, with the exception of a \$575,000 bank loan to cover the retail construction and a bridge loan to allow time for the retail to lease up.

With a development of this size, and with six grants starting at just \$75,000, procuring and tracking these funds was challenging. It took over two years to obtain financing, including grant applications, marketing the project to banks, information to funders, etc. The Housing Authority was involved in the development of the housing component but had little experience with retail/commercial development. For this reason, a real-estate broker was solicited to market the retail space.

Location and transit access

SE Division and 41st Avenue, Portland
Bus line 4

Project statistics

Site area: 21,000 sq. ft.
Total housing units: 21 apartments
Density: 43 units/acre
Parking ratio: .7/unit
Unit types: Studio, one and two bedroom
Total commercial space: 6,500 sq. ft.
Completion date: 1997

As the development proposal began to take shape, the developer and county officials had to address concerns about clean-up of the site as well as the size and design of the development. Some citizens were also concerned that because of the budget, the library would lease rather than own its space. They believed the library might be less permanent or that the private developer would receive an unfair benefit.

A 4,375 square foot library opened as the anchor tenant in a mixed-use building completed in 2002. The building includes additional retail space and 16 condominium units. Residential sales prices ranged between \$225,000 and \$850,000. The library lease is for 30 years with a 10-year renewal option.

Lessons learned

Public entities with space needs can play a critical role in mixed-use projects. Ground floor commercial space is often the most speculative aspect of a mixed-use building, and the participation of a credit-worthy entity like a County government with a long-term space need can make all the difference. Libraries provide a particularly attractive combination with housing, but construction costs were higher than typical in order to create a "civic" quality building.

Location and transit access

7860 SE 13th Avenue, Portland
Bus line 70

Project statistics

Site area: 32,000 sq. ft.
Total housing units: 16 condominiums
Unit types: 6 lofts, 10 townhouses
Completion date: 2002

Sellwood-Moreland Library/ Library Lofts

The neighborhood plan for Sellwood-Moreland in SE Portland called for housing and locally oriented businesses and services in on SE 13th Avenue, a commercial street becoming dominated by antique shops with a regional draw. A former plating site on SE 13th Avenue designated as a brownfields location emerged as a possible library site. Although the original library bond budget was based on the expansion of the library at its old location, the opportunity to address multiple public goals caused county officials to consider a new building.

Lake View Village

Lake View Village is an important catalyst in the revival of downtown Lake Oswego. Commercial space wraps a four-level parking structure with 365 parking spaces to ensure a pedestrian-oriented environment while responding to the parking demand of a suburban community.

The project was initiated by the Lake Oswego Redevelopment Agency through a process that included land acquisition, partial resale to a private developer, a binding development agreement and public assistance to construct the parking structure. The parking structure remains in public ownership. The development agreement defines

areas of private and public parking, and it requires the project developer to maintain the public parking structure. The project was developed by Gramor.

The commercial buildings are privately owned. The ground floors are exclusively for retail or restaurant uses, and the upper floors are predominantly offices. The net leaseable space totals over 84,000 square feet. The project was completed in 2002.

Lake View Village complements Millennium Plaza Park, which opened in 1999. The Park hosts a weekly farmers market and other events. It includes Simon Toparovsky's seven-foot bronze sculpture, "Fortuna," atop an eight-foot rock pile and fountain.

Location and transit access

Avenue A and Millennium Plaza Park, Lake Oswego
Bus lines 35, 36 and 78

Project statistics

Leasable space: 84,000 sq. ft.
Parking spaces: 365
Cost: \$32 million
Completion date: 2002

North Main Village



North Main is considered the cornerstone of Milwaukie's downtown revitalization effort. For years, a vacated Safeway store inhabited the two acre site, but now in its place is an architecturally diverse mixed-use project providing housing, live/work and retail space. Located just 10 miles south of downtown Portland and just blocks from the Willamette River, developer Tom Kemper saw the project as a prime opportunity for supporting a resurging Milwaukie. The project is the first new housing in downtown Milwaukie in more than four decades and the first mixed-use and first

condominium project ever. Innovative design features include the courtyard's rain garden, which channels and filters stormwater and runoff into a central plaza. In 2007, North Main Village received the "Downtown Award in Excellence for Physical Improvements—Pioneering Projects."

The project was designed by Myhre Group architects and is comprised of six buildings providing Milwaukie's downtown with 97 housing units (64 affordable apartments and 33 market-rate townhomes and condominiums) and 8,000 square feet of retail space. The housing element of the project consists of townhomes, some of which include live/work elements, and a four-story apartment/condo building. Each building features a distinct architectural style. The buildings near the pre-existing Mason's lodge offer a more traditional feel, while the site's northern buildings transition into a more contemporary look.

The project is the result of collaborative effort among private developers and financers with state, regional and local governments. Participants in the affordable housing element include Enterprise Social Investment Corp., Oregon Housing and Community Services, Metro and the City of Milwaukie. Scanlan Kemper Bard Companies was the equity partner for the market-rate housing and retail element; the construction lender was Bank of America. The project utilized the State of Oregon vertical housing program and received a long-term, low-interest loan from the Metro Transit-Oriented Development Implementation Program.

Location and transit access

10554 Southeast Main Street, Milwaukie

Project statistics

Mixed uses: 8,000 square feet of retail; 56 affordable rental units; and 33 ownership townhomes, flats and live/work units
Site: 1.85 acres
Parking: 33 tuck-under and 56 surface spaces
Buildings: 6 separate structures, 2 and 4 stories
Completion date: 2007

Town Center Station

Town Center Station is a three-story residential development with 52-affordable energy efficient housing units, a 2,695 sq ft community center and programmed educational and nutritional opportunities for residents. The project includes 10 studio and 42 one-bedroom apartments targeted toward retail workers at Clackamas Town Center,

with rents ranging from \$465 and \$598 per unit. Town Center Station introduces new urban style housing into the Clackamas community. Designed to reduce resident dependency on private autos, the project supports multiple modes of transportation by implementing the following strategies:

- Reduced off-street parking ratio (approved by Clackamas County) of 0.83 spaces/unit.
- On-site parking management through leased parking spaces to residents.
- Encourage and educate tenants to walk, ride their bicycle, and use public transit.
- Bike storage and bike hooks in every apartment unit.
- Provide financial education of the cost of car ownership and the benefits of transit.

In addition to promoting transit, Town Center Station includes a unique placemaking element. The project will preserve nearly 3,800 sq ft of onsite green space for gardening and growing food. Residents have direct access to vegetable beds and assistance with organic gardening methods.

Location and transit access

8719 SE Monterey Avenue, Clackamas County

MAX Green line

Bus lines 28, 29, 30, 31, 71, 72, 79, 152, 155, 156 and 157.

Project statistics

Mixed uses: 2,695 sq ft community center; 52 affordable rental units, and 3,800 sq ft of onsite green space for gardening and growing food

Parking ratio: 0.83 spaces/unit

Completion date: 2010

Resources

Transit

I-205 Light Rail (MAX Green Line)
trimet.org/about/history/greenline.htm

Portland-Milwaukie Light Rail Project (2015)
trimet.org/pm/index.htm

Lake Oswego to Portland Transit Project (2018)
tinyurl.com/metrolopt

Planning

Outer SE Plan
tinyurl.com/outersepdxplan

Clackamas Regional Center Area
clackamas.us/transportation/planning/zdo.jsp
 (under section 1700)

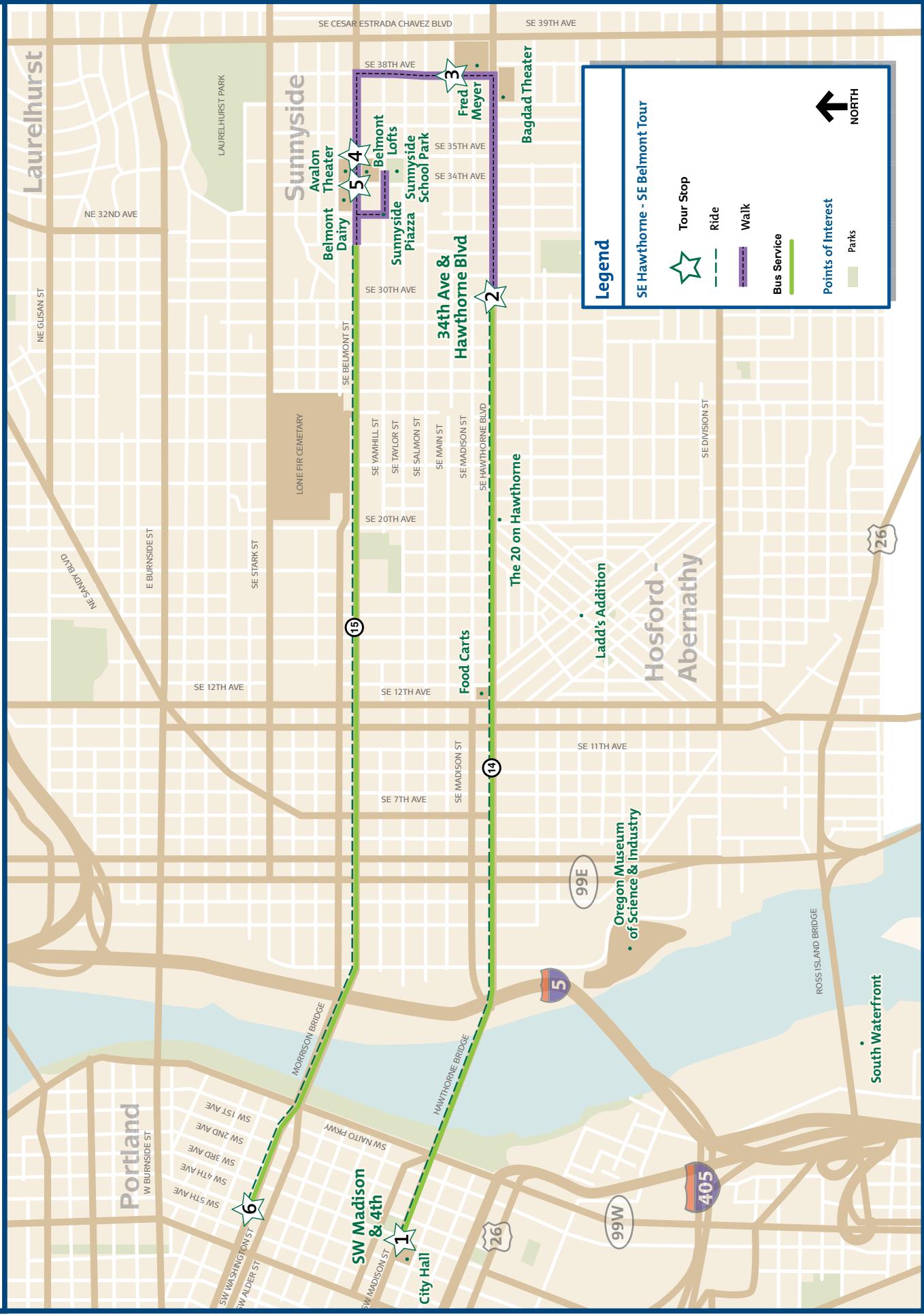
Downtown Milwaukie
cityofmilwaukie.org/departments/planning/planning.html

Transit-oriented developments

North Main Village
lmccorporated.com/projects/north_main_village.php

Lake View Village
gramor.com/locations/lake_view_village/features

Hawthorne/Belmont Streets Tour



Hawthorne/Belmont Streets Tour

Portland's Streetcar system spanned much of the inner eastside in the early 1900's, helping to spur walkable, mixed-use communities that continue to thrive today. Eventually, streetcar lines were replaced by bus lines, partly in response to increasing automobile ownership and declining transit ridership. Today, these historic streetcar neighborhoods boast small, walkable blocks, a robust network of bike boulevards, mixed-use infill development and strong transit ridership. This tour will take you on two of the most vibrant former streetcar streets on Portland's eastside—Belmont Street and Hawthorne Boulevard. The tour takes approximately 90 minutes and includes about 1.5 miles of walking.

1. Start your tour at the downtown Portland bus stop at SW 4th Avenue and Madison Street (Stop ID #3639), next to City Hall. Buses from all over southeast Portland stop here, giving a hint of the extensive bus system that serves a large portion of the Portland Metro area. Modern transit shelters created for the addition of light rail to the Portland Mall were also provided for bus routes running perpendicular to the Mall. The effect is a blanket of easy-to-use, high-quality transit coverage in downtown Portland.

Board Line 14-Hawthorne. The ride to the Hawthorne District will take about 12-14 minutes. The bus crosses the Willamette River on the Hawthorne Bridge. The bridge was built in 1910 and the most recent refurbishment in 1998 included replacement and widening of the bridge deck for pedestrians and bicyclists. Bicycle traffic went from 2,100 trips per day in 1997 to over 7,000 trips per day in 2009. Bicycles now account for 21 percent of all vehicles crossing the Hawthorne Bridge. The increased demand has led to bicycle lane widening on the eastside approach toward downtown to allow faster bicyclists to pass on the left in a separate bike lane.

As you cross the bridge, the mid- and high-rise towers to the south are the new South Waterfront District. Across the river, is the red-orange former industrial smokestack (now non-operational) of the Oregon Museum of Science and Industry (OMSI). The bridge traffic continues on a viaduct built in 1957 to cross over the busy mainline railroad tracks that provide freight mobility into and through the Central Eastside Industrial District

of Portland. The viaduct ramps begin and end at SE Grand Ave, where the latest extension of the Portland Streetcar is being constructed to serve the 17,000 jobs in this district, which is officially an "Industrial Sanctuary," to preserve employment opportunities in the Central City.

As the bus approaches the intersection of SE 12th and Hawthorne, the street again becomes two-way. On the northeast corner of the intersection is one of Portland's trademark "food cart pods" which breathe street life into formerly vacant lots throughout the city by offering a variety of high-quality and relatively inexpensive food to residents and workers nearby. To the south is the historic Ladd's Addition neighborhood, first platted in the 1890's with narrow, diagonal streets that contrast sharply with the strict rectangular block pattern of surrounding neighborhoods.

A node of commercial development at SE 20th Avenue is complemented by a newly completed multi-use building on the right—the 20 on Hawthorne. This building is the first in Portland to use mechanized parking to more efficiently store automobiles—29 parking spaces are provided in the space of 10 using three levels. The City of Portland does not require off-street parking for new development on streets well served by transit. The 48 residential units and 5,000 square feet of commercial space represent smart infill with very low parking ratios that can result from the right mix of zoning controls and freedom.

2. Get off the bus at SE 34th Avenue and Hawthorne Boulevard. The bus stop at this corner sits on a large curb extension constructed as part of a comprehensive pedestrian and bicycle enhancement project for Hawthorne Boulevard using regional flexible funds from the federal government. A generous number of bike racks were also installed along the street. The mixed-use development adjacent to the stop replaced a fast food drive-through with surface parking. Although the modern architectural vocabulary was not without controversy, the orientation to the pedestrian and building massing are consistent with development standards on a transit street. The inclusion of 16 rowhomes above ground-floor retail makes better use of land served by transit than single-story development.

Walk east toward 38th Avenue. The densest area of activity on Hawthorne is located between SE 34th and 38th avenues. Cross Hawthorne Boulevard at the light at 36th Place. An auto-oriented strip mall occupies the northwest corner of this intersection. Originally built in 1911, the building probably housed a successful retailer that was able to purchase adjacent properties to make way for a parking lot. Today, this parking lot appears out of place and the retail storefronts suffer from distance from the pedestrian traffic. A bike oasis adjacent to the parking lot was constructed as part of comprehensive streetscape improvements. Shelter from weather, a street map and the location of nearby bike shops create a user-friendly parking opportunity for bicyclists.

Continue walking east along the street to enjoy the shopping experience. Interesting window displays, sidewalk awnings, pedestrian-oriented signage, street furnishings and related pedestrian amenities result in an overall pedestrian-friendly experience. At SE 37th Avenue is the Bagdad Theater, a local landmark that was built by Universal Pictures in 1927 and proclaimed a “triumph of artistry and craftsmanship.” In 1991, the theater was revitalized by the McMenamin brothers as a pub and cinema with occasional live performances and other events. “McMenamins” is a household name in Oregon and southwest Washington, known for buying and rehabilitating older buildings, which they then operate as restaurants and hotels. Started in 1983, McMenamins is now the fourth largest producer of microbrew beer in the region and includes more than 50 establishments, many of which are on the National Historic Register. They even employ a historian to uncover and maintain the history of each of their historic landmarks.

3. One block further east is a Fred Meyer grocery store. The two-story 1950s building was recently remodeled to meet LEED Silver certification and includes eight electric vehicle charging stations, ample covered bike parking and a community mural. In addition, the store no longer uses plastic bags. During the remodel, a second entrance was created to face Hawthorne Boulevard, along with additional windows facing the street. If you walk to the back of the store, you’ll notice the pedestrian infrastructure located in the parking lot. The Portland zoning code requires safe pedestrian facilities through parking lots. The one in the center of this parking lot straddles an on-site stormwater management facility designed to allow natural stormwater infiltration into the water table—a

more environmentally friendly way to deal with runoff from impervious surfaces such as buildings and parking lots. The store also includes a sushi bar, a deli and restrooms.

Walk north through the residential area along SE 38th Avenue to get to Belmont Street. At the corner of 38th and Main, are street bioswales. These are the new standard in street construction in Portland. Similar to the private facility in the Fred Meyer parking lot, these bioswales provide an environmentally friendly way to deal with stormwater runoff.

Continue north on 38th. The architectural diversity of the neighborhood is evidenced by the collection of Craftsman bungalows, Victorians and Colonial Revival homes. The earliest zoning designations for this neighborhood were for multi-family housing or single family on small lots. During World War II, some larger homes were divided to provide workforce housing. Today, this transit-supportive density merits greater bus service that results in one of the highest transit mode splits in Portland.

Continue north on 38th past Salmon Street using the paved walkway/driveway past the “No Outlet” sign. Although never fully improved as a public street, neighborhood residents requested that this public right of way become a formal walkway to maintain the connectivity of the street grid. The walkway adds charm and provides an unexpected experience for pedestrians and bicyclists traveling between Hawthorne and Belmont. At the end of the walkway at SE Taylor Street, you can see the bright white bicycle boulevard markings known as “sharrows”—arrows indicating a shared roadway. These markings serve two purposes: alert drivers to share the roadway with bicyclists, and direct bicyclists along the designated bikeways through neighborhoods. To the east, the Taylor Street bicycle boulevard intersects a major traffic artery in the city—César E Chávez Boulevard. Special street treatments are incorporated there to safely allow bicyclists across the intersection.

Approach Belmont Street. There is a multi-use building on the northeast corner of Belmont and SE 38th Avenue. Once a one-story market, the owner decided to redevelop with small-sized condominiums with an emphasis on a unique design. These condos appeal to first-time homebuyers who cannot otherwise afford the price of single-family homes nearby.

Walk west on Belmont Street. Although it is less commercial than Hawthorne, Belmont is just as interesting with its wide variety of architecture, historic period details, porches, and close proximity of the homes on narrow lots.

4. Stop at SE 35th street and Belmont. View the Belmont Street Lofts on the southwest corner. The distinctly modern wood exterior contrasts with two prominent historic structures at that intersection. The exterior skin is a rain screen system constructed of renewable Brazilian ipe wood. The Belmont Street Lofts complies with the city's requirements for pedestrian-friendly design on main streets by providing ground floor storefronts and plenty of window area facing the sidewalk. At a density of approximately 80 units per acre, and with less than one parking space per unit, the four-story building shows how infill can work with any architectural style. The popularity of the design was evident when the building's 27 condominium units quickly sold out shortly after construction in 2004.

The two other notable structures at this intersection are the Avalon Theater and Belmont Firehouse. Originally named the Sunnyside Theater, the Avalon building was constructed in 1913 with a single auditorium and later divided into three screening rooms, as multiplexes became popular. The historic Belmont Firehouse, a brick structure built in 1912, replaced an earlier wood version constructed in 1898. It now houses the Safety Learning Center and Fire Museum.

Continue walking west on Belmont Avenue. Belmont has several "bike corrals". Previously providing parking for just one or two cars, business districts throughout Portland are beginning to embrace the bike corrals as a way to accommodate more customers within limited public space. The city now regularly receives calls from businesses to have bike corrals replace one or two parking spaces in order to sustain the growing base of bike-commuting customers.

Stop at the intersection of SE 33rd Avenue and Belmont. The Belmont Dairy project established a new standard for inner-city redevelopment in Portland. The first phase, completed in 1996, reused a 70-year old former dairy building and added five stories of apartments over a parking podium. Behind this block to the north is phase two of the project, completed in 1998, which provided 30 urban townhomes that allow for live-work use. The project exhibits low parking

ratios and shared-use of parking while providing the opportunity for neighbors to walk and bike to a local grocery store. Walk around and through these two development blocks to take in the attention to detail in the implementation of a right-sized infill project.

Return to SE 33rd Avenue and Belmont Street, then walk south on SE 33rd. It's hard to miss the brightly-painted intersection affectionately referred to as Sunnyside Piazza at the corner of SE 33rd and Yamhill Street. The street mural painted as a sunflower, community kiosk and art wall were the invention of neighbors working with the non-profit City Repair organization. They wanted to bring more attention to the community aspects of the street and the Sunnyside neighborhood while reducing focus on auto traffic. Through City Repair's annual Village Building Convergence that began in 2001, nearly 150 local groups have developed more than 250 projects that range from a public bench to the creation of a similar "share-it square" design like Sunnyside Piazza. The City of Portland has supported these projects with the passage of an ordinance in 2001 that legalizes such intersection modifications and sets basic guidelines for their planning, development and maintenance.

Walk east on SE Yamhill Street to Sunnyside School Park. A shared space between the Sunnyside Environmental School and the public, the park demonstrates an efficient use of public property that creates park space in park-deprived neighborhood. This K-8 public school offers a thematic environmental curriculum focus, which resonates well with many in the neighborhood. The school's popularity and performance has led to plans to create a second public school with an environmental focus in North Portland. The gardens on the school property are part of an outdoor learning laboratory for the students.

5. Return to Belmont Street to board the Line 15-Belmont bus at the northeast corner 34th Avenue and Belmont (Stop ID #423). Line 15 is a Frequent Service bus and so the next bus should arrive within approximately 15 minutes, but you can call TransitTracker (503-238-7433) to get the real-time arrival.

The tour ends at SW Washington Street and 5th Avenue, the second bus stop after crossing back over the Willamette River into downtown Portland.

Annotated TOD Bibliography

This brief annotated bibliography provides resources on topics related to transit-oriented development (TOD). This is not an exhaustive list, but simply a description of several informative articles and websites in the subject realm.

Transit-oriented development

Community Design & Transportation: A Manual of Best Practices for Integrating Transportation and Land Use, Augenstein, C., ed., San Jose: Santa Clara Valley Transportation Authority, 2003.

This manual was developed to assist San Jose, California's Valley Transportation Authority (VTA) implement the Valley Transportation Plan (VTP) 2020. It provides information on best practices for designing and implementing transportation and land use-related projects.

TCRP: Research Results Digest 52: Transit-Oriented Development and Joint Development in the United States: A Literature Review, Chisholm, Gwen, Transportation Research Board, 2002.

This extensive literature review defines TOD and transit joint development (TJD) and describes the issues associated with TOD through examples and studies of impacts and benefits of these developments. The brief conclusions note a need for more studies on the topics of the formation of TODs and the effects on ridership, traffic conditions and air quality.

TCRP: Report 102: Transit-Oriented Development in the United States: Experiences, Challenges and Prospects, Cervero, Robert, Transportation Research Board, 2004.

This comprehensive report, led by UC Berkeley's Cervero, covers tools, barriers and impacts of TOD as well as 10 case studies contributed from around the country.

Transit-Oriented Development: Moving from Rhetoric to Reality, Belzer, Dena, and Gerald Autler, The Brookings Institution, 2002.

This article explores and explains transit-oriented developments throughout U.S. history to develop and understand the practice. The authors contribute to TOD literature with a work that demonstrates how these developments can be designed and approached in communities to create a successful TOD.

The New Transit Town: Best Practices in Transit-Oriented Development, Dittmar, Hank and Ohland, Gloria, eds., Island Press, 2004.

Chapters cover such topics as zoning and financing TOD. Case studies include detailed "lessons learned."

reconnectingamerica.org.
Accessed: Sept. 21, 2010.

Reconnecting America provides both the public and private sectors with an impartial, fact-based perspective on development-oriented transit and transit-oriented development, and seeks to reinvent the planning and delivery system for building regions and communities around transit and walking rather than solely around the automobile. The website provides information on recent reports and projects.

Light rail impact on land value

Impacts of Rail Transit on Property Values, Roderick B. Diaz, APTA Rapid Transit Conference Proceedings Paper, McLean, VA: Booz Allen Hamilton Inc., 1999.

This paper draws conclusions about rail transit impacts on adjacent property values from the study of 12 heavy-and light-rail projects in North America. In general, this study found that proximity to rail is shown to have positive impacts on property values.

Light Rail Transit Impacts in Portland: The First Ten Years, Kenneth J. Dueker and Martha J. Bianco, Transportation Research Record 1985, pp. 171-180. Catalog Number R081.

This report examines how the first decade of light rail transit in the Portland, Oregon, region has affected auto ownership, mode share, density and property values. The analysis provides evidence that light rail has had some early positive effects on single-family property values, transit use and slower growth of two-car plus households in the outer part of the light rail transit corridor as compared to an outer part of a parallel bus corridor.

Mass Transportation, Apartment Rent and Property Values, Benjamin, J. D., and Sirmans G. S., The Journal of Real Estate Research, 12, 1, 1996. en.scientificcommons.org/34267158 Accessed: Sept. 21, 2010.

This article examines apartment rent and property value for residential income properties located in close proximity to Washington, D.C., Metrorail stations. The article concludes that the distance away from Metrorail stations affects property values negatively; the farther away a property is located from a station results in a decrease in rent, which in turn is reflected in the property's value.

TCRP Report 102: Transit-Oriented Development in the United States: Experiences, Challenges, and Prospects, Transportation Research Board of the National Academies, 2004. (161-179).

Chapter 9 of this publication, titled Real-Estate Market Impacts of TOD, examines TODs and the implications of this sort of development on the real estate market. Through describing specific experiences with rail and TODs in several North American cities, and through exploring research over the past two decades, this article describes the benefits of residential and commercial properties located near transit stops and within a TOD.

The Effect of Rail Transit on Property Values: A Summary of Studies, Parsons Brinckerhoff, Cleveland, OH: NEORail II, 2001.

This succinct article presents a broad overview of numerous rail transit studies that have found correlations between rail transit and property values. It provides an overview of the types of impacts revealed in various studies relating to commercial and residential property values influenced by rail transit implementation.

Transit's Value-Added: Effects of Light and Commuter Rail Services on Commercial Land Values, Robert Cervero and Michael Duncan, Berkeley, CA: 2001.

The article provides a thorough description of how rail transit and land values are interrelated through TOD, and provides a history of Santa Clara County's experience with rail transit. By studying Santa Clara County, California, this article confirms a significant increase in land values near light rail services.



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